

BETTER VILLAGES

F. L. BRAYNE



OXFORD UNIVERSITY PRESS



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READY FOR SERVICE
Isn't Scouting a topping game ?

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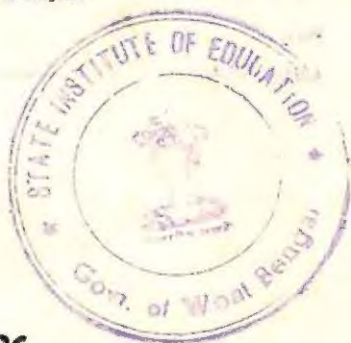
BETTER VILLAGES

BY

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SOCRATES IN AN INDIAN VILLAGE, etc.*

WITH A FOREWORD BY

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FOREWORD

RURAL UPLIFT has come to occupy a prominent place in the programme of rural reconstruction. This is as it should be. The experience of rural organization all the world over has emphasized the necessity of planning out an all-comprehensive rural programme. In Denmark, Ireland and elsewhere rural reform was tried piecemeal and proved abortive. It was not till that great co-operative and rural pioneer, the late Sir Horace Plunkett, evolved his triple plan of 'better agriculture, better business, better living' that the European farmer saw the dawn of a new era. The experience of Indian rural reformers is pointing the same way, and Mr Brayne's valuable thesis is a welcome and timely contribution in the right direction.

It is almost a truism to say that the economic future of India depends primarily on its agricultural population. The worries and joys of the Indian farmer must reflect themselves in the Indian and Provincial budgets and shape the pace of India's trade. As such, the village community is, as it has always been, the bed-rock and sheet-anchor of India's social and economic system. And yet the plight of the average Indian village and the standard of living of an average agricultural home is the least calculated to encourage initiative or to inspire hope for a better economic output. It is now recognized that environments play an important part in tuning up the human factor so essential in the economy of production. Therefore, the neglected rural side is a call to duty which no official or non-official in India can, with wisdom, afford to ignore.

Mr Brayne's name and work is a household word in the rural Punjab. By dint of perseverance and practical sympathy, he has almost single-handed 'set up a new tradition in the rural Punjab. The ice has already been broken and, with necessary official and non-official enterprise, the results are almost assured. Mr Brayne's latest book combines the imagination of a practical idealist with the constructive planning of a reformer who has moved amongst the masses and stirred them with a new gospel. As such, everything that he writes is entitled to weight and consideration. Mr Brayne rightly emphasizes in his book that the first essential plank in the uplift edifice is to create the right spirit amongst the village folk—men, women and children. This is imperative ; but experience has shown that more often it is ignorance rather than familiarity which breeds contempt, and that in the sphere of rural uplift it is primarily ignorance which, in India as elsewhere, has to be combated. For this, example is obviously the most effective weapon. Let the big and middle-class zemindars who are the natural leaders of the rural side take a healthy initiative, by personal example, in organizing a movement for better villages within and around their spheres of influence. This is a duty which can no longer safely be neglected. The latest widening of the franchise in the rural electorate has opened new vistas of encouragement for those who deserve and win the confidence of the electorate through constructive service. The days of feudal influences are over, and unless the leading zemindars win and retain the support and confidence of their backward and poorer brethren through service they will themselves be abetting their abdication.

Thought, they say, is the one creative power, and thinking on right lines is the first essential of any

constructive reform. As such, the necessity for all actual and potential workers in the field of rural uplift to understand the main threads of the movement, and to gain by the experience of one who by sustained effort has earned the gratitude of many of the Punjabis amongst whom he has worked, cannot be over-emphasized. This latest treatise on the subject by Mr Brayne makes that knowledge available in a convenient form. I commend it, as such, to officials and non-officials who are interested in the welfare of the Indian rural side. To ensure results, however, this book has not merely to be studied, it has to be lived. In that effort, I wish the book, its readers and those interested in rural uplift, God-speed.

S. HYAT-KHAN

Simla E.

26 June 1937

PREFACE

Village Uplift in India and its second edition *The Remaking of Village India* are now out of print. Such has been the progress made since then that much of what was said there need not be said again. What is wanted now is a book pointing out briefly what has to be done and how it should be done.

An attempt is made in this little book to supply this need but no one knows better than I do how far it will fall short of being a complete guide to rural reconstruction. Problems vary from village to village and so do the solutions of the same problem. At the same time, I feel that a brief description of various remedies for some of the difficulties and troubles of the Punjab village, all of which have somewhere or other been accepted as satisfactory by actual villagers, will be of value to many workers.

This book is not intended to replace the text-books of the various sciences which deal with rural subjects. It is intended for the lay worker, official or non-official, and only contains what every intelligent person living or working in a village should know for his own and his neighbour's well-being. At the same time its contents have been scrutinized by experts and their criticisms and suggestions most carefully acted upon, so that, simple though the book tries to be, I think its technical details may be accepted as generally correct. For this result, I am more than grateful to many kind friends, official and non-official, who have given me such willing and painstaking help. In particular, Mr F. B. Wace, I.C.S., Registrar of Co-operative

Societies and Mr H. R. Stewart, I.S.A., Director of Agriculture, and their staffs, and Lt-Col C. M. Nicol, I.M.S., Director of Public Health, Punjab, have taken very great trouble indeed in helping me to put to rights the parts of the book concerned with their subjects.

I must also thank the Punjab Government for permission to make use of the illustrations, most of which are taken from the series of Magic Lantern Slides which they issue. For permission to make use of the newspaper cuttings on p. 265 I am indebted to the Editors of *The Statesman*, Calcutta, *The Tribune* and *The Civil and Military Gazette*, Lahore, and to the Associated Press of India.

Although I am a servant of Government and am writing about work in which I am officially employed, the responsibility for this book is entirely mine.

F.L.B.

Lahore

CONTENTS

CHAPTER	PAGE
FOREWORD BY MAJOR SIRDAR THE HONBLE SIR SIKANDER HYAT-KHAN	v
PREFACE	ix
I THE TASK	1
II FIRST PRINCIPLES	4
Permanence and spontaneity. Example : Government example—Government official's example—example of educated classes— rural leader's example—conclusion	
III FIRST PRINCIPLES (<i>cont.</i>)	17
Self-help. How to start work. The standard of living	
IV CONTRIBUTORS	28
Providence—Government—the farmer—his partner—the land—cattle—the capitalist— the shopkeeper—the artisan—the village official—the menial	
V HOME AND VILLAGE	32
General: The home—the village. What must be done: Light and air—cleanliness— wells—the village pond—miscellaneous	

CHAPTER	PAGE
VI THE FARM	57
Capital. Land. Water. Manure. Good seed. Strong cattle. Proper implements. Common sense and hard work. Attention to crop diseases and pests	
VII THE PROBLEM OF EROSION	79
The menace. The remedy. The application of the remedy. Canal catchment areas	
VIII CATTLE	93
The improvement of cattle: Food—disease—pedigree. Cattle breeding societies. How District Boards and district authorities can help. How municipalities can help. Covering fees. Export trade	
IX HEALTH	107
Cleanliness. Food and other necessities. Diseases. Eyes: Dirt—doctors—eye diseases are catching—the cleaning of eyes—the rural dispensary—newborn babies. Organization: The payment of fees—curative and preventive—health units—general	
X WOMEN'S WORK	127
The hand that rocks the cradle. Education of girls. Trained workers and home-making institutes. Women's institutes. A welfare service. Health and medical work: Difficulties—doctors—health visitors and midwives—conclusion	

CHAPTER	PAGE
XI VILLAGE ORGANIZATION	152
The problem. The solution. Compulsion or self-government. Village Organizations : The Panchayat—the co-operative society—sanitary committees—other bodies. The village book of progress	
XII CO-OPERATION	164
Principles. Various kinds of societies : Better Living societies—Cattle Breeding societies—Arbitration societies—Consolidation of Holdings societies—Industrial societies	
XIII THE VILLAGE SCHOOL	180
XIV DISTRICT ORGANIZATION	195
The Officers' Board. The <i>Dehat Sudhar</i> Committee. A multiplicity of organizations. Rural Community Boards	
XV PUBLICITY	204
Wireless broadcasting—magic lanterns and cinemas—dramas—songs and glees—gramophone records—the press—district newspapers—coloured pictures and posters—books—other printed material—models and miniatures—exhibitions, shows, <i>mêlas</i> —competitions—public meetings and speeches—demonstrations—weeks—school propaganda—model villages—conclusion	
XVI RURAL FINANCE	233
The present system. The future. Old debts	

CHAPTER	PAGE
XVII CRIME AND FACTION	245
Work and play. Better homes. Organized villages	
XVIII SIDE-LINES	251
Hard work and co-ordination: Poultry—dairying—vegetables and fruit—sheep and wool—goats—horse and mule breeding—bees—silk—lac—handicrafts	
XIX MISCELLANEOUS	263
Ornaments. Unwanted dogs. Cactus. Accuracy and training. A weekly holiday. Quinine. Untouchability. Cattle-lifting and tattooing. Armistice Day and an Indian Legion. Game preservation. Ribbon development. Urban uplift	
APPENDICES	
I LIST OF BULLETINS, LEAFLETS AND PAMPHLETS	277
II SOME HANDY BOOKS FOR RURAL WORKERS	279
III LIST OF MAGIC LANTERN SLIDES	283
IV LIST OF GRAMOPHONE RECORDS IN PUNJABI AND URDU	285
V LIST OF RURAL RECONSTRUCTION MODELS	288
VI LIST OF CONCRETE CEMENT ARTICLES ..	290
INDEX	291

LIST OF ILLUSTRATIONS

PLATE		PAGE
I	READY FOR SERVICE	<i>Frontispiece</i>
II	(a) DIGGING A PIT	37
	(b) FILLING DEPRESSIONS	
III	AN ATTRACTIVE HOME. INTERIOR AND EXTERIOR	52
IV	CONSOLIDATION OF HOLDINGS	58
V	(a) COTTON SOWN IN LINES	70
	(b) IMPROVED SUGAR-CANE	
VI	(a) A NEGLECTED GRAZING GROUND	83
	(b) THE LAST STAGE OF EROSION	
VII	(a) GOOD CATTLE	98
	(b) IMPROVED BIKANIR RAM	
VIII	(a) THE VILLAGE PANCHAYAT	141
	(b) CO-EDUCATION	
IX	(a) ROAD MENDING	169
	(b) A PAVED STREET	
X	THE USE OF JEWELLERY	265

CHAPTER I

THE TASK

THERE is a very great deal wrong with village life, and the following chapters try to describe in some detail each item that I consider wrong and what I think should be done to put it right. What will suit one village, however, will not always suit another. Conditions vary greatly not only all over India but even all over the Punjab, and it is impossible to prescribe one single remedy for each and every area or for each and every defect. The best one can do is to set down the general principles and leave local workers to modify them to suit the local conditions in which they find themselves. I shall not carry my reader with me, however, unless I can explain exactly how the various reforms that I suggest can be carried out. Otherwise, instead of considering each suggestion on its merits, the reader will be continually saying: 'This is all very well—defect after defect, and remedy after remedy—that is easy enough. What I want to know is how is he going to get it all done? How will he convert the printed words into actual action in our innumerable villages?'

The answer to these very reasonable questions is that the villager has to be inspired to put his home and village right himself, and the main problem of rural reconstruction is not so much to find out what is wrong and how to put it right, as to put a dynamo into the village, so that the villager himself will not only realize that things are wrong but will go on thinking and working in co-operation with his fellow-villagers and with Government to put them right.

This dynamo is the ambition to raise the standard of living.¹ Wherever there is this ambition the people will sink their differences and join together, saving, scraping, sacrificing, working early and late, and searching for ways to improve their homes, farms and villages. Till then they have to be driven to carry out every improvement, however obvious and simple and profitable, and once the driving force is removed, work stops. In fact until this desire to rise can be put into the villager's heart, we are rolling stones up a hill, like Sisyphus of old, and as soon as we stop our unnatural efforts, things will soon be as bad as ever or even worse.

This book sets out to show both how this ambition for better things is to be implanted and how, once implanted, science and experiment and experience have enabled it to be achieved.

The depression and the crisis caused by the recent fall in prices have ushered in a new era in the Punjab. If we wish to survive in this new era there must be a truce to all wasteful habits and extravagances, to the old ways of idleness both of mind and body and to the old quarrels, factions and parties. The villager's mind must be alert to learn, and his hands to act upon what he learns. Family must not be divided against family, nor brother against brother, nor religion against religion. Quarrelling, jealousy, and factions of all kinds must cease. Capitalist and agriculturist, rural and urban, official and non-official, landowner and tenant, instead of abandoning the land while they fight to get the most out of each other, must all work together to get the most out of the land.

When a mighty flood comes down in one of our great rivers, there is said to be truce of God declared between all

¹ See pp. 6, 23, 130.

the birds and beasts of the jungle. So must there now be in the Punjab, in the presence of one of the greatest crises in its history. Self-help and mutual help are the only remedies for our difficulties and these must be born of a knowledge that a better, happier and healthier life is possible, and of a firm desire and intention to achieve that higher standard of life if it is humanly possible to do so.

The old pattern of village life has failed—both in good times and in bad. A new plan is wanted, based not on material things but on spiritual. Rural Reconstruction is nothing more or less than the revival of the old-fashioned virtues of hard work, thrift, self-control, self-respect, self-help, mutual help and mutual respect.

All this will mean a revolutionary change for the villager : his outlook towards his work, towards his resources, his cattle, his family, his farm, his neighbours and his Government must be entirely changed. Is it worth it and is it possible ? I say decidedly ' Yes ' to both questions, and so do those villagers who have tried out this programme of rationalization or modernization. The alternative is squalor, discomfort and suffering ; in fact the life once described in the West, before a similar programme of reconstruction was tackled there, as ' nasty, brutish and short '.

That it is perfectly possible to make a vast improvement in every sphere of village life I am absolutely convinced, and I hope the reader who bears with me to the end of this book will be equally convinced.

CHAPTER II

FIRST PRINCIPLES

I. PERMANENCE AND SPONTANEITY

WE keep on telling the villager to take pride in his home, farm and village, to abandon his besetting sins of apathy, faction and extravagance, to sacrifice his ease and leisure and to join with his fellows and work hard and eagerly to raise his standard of living. Our appeals leave him cold, and without strong persuasion he often will not even pick up money lying at his feet or stop wasting what he already has. He seems quite indifferent either to his happiness, his health, or his prosperity. Laws are made to help him to ease his load of debt. Does he use them? No, he colludes with what we call his natural enemy the creditor to evade the law, and borrows still more money at even worse rates. At certain seasons and for certain purposes his ancient customs demand that he should spend money freely, and spend it he will, cost what it may to get. He does not even want to get out of debt,¹ he knows that any improvement in his farm will mean more money, not for him but for his creditor, and so he is indifferent to the improvement of his farm, and he even seems indifferent to the welfare of his family.

Why this seemingly illogical conduct? The villager is a shrewd fellow; why does he follow what seems to us such an idiotic course? For the explanation we must look back a bit. For centuries he has been the sport of disease

¹ See p. 240.

and climate, and this utter dependence on a tyrannical and capricious Nature has made him apathetic and fatalistic. Farmed he never so well, if locusts came or the rains came not, he starved; and farmed he never so badly, timely rain would give him a bumper crop. If plague or pestilence came, his family, his cattle, his village might be wiped out, and nothing he could do would help. He was utterly at the mercy of Nature, and helpless to protect himself.¹ What wonder that ages of this uncertainty made him a fatalist, and gave him for motto, 'Eat, drink and be merry, for tomorrow we die.'

Then came science, research and modern engineering, enabling us to control epidemic disease, to make two and even three blades of corn grow where but one grew before, and to bring water and food to dry and hungry places, and so to remove the causes of this apathy and fatalism. Education, however, lagged behind science, and although the reason for fatalism had gone, the fatalistic mentality remained. The villager saw that the days of famine and pestilence had gone, but he had not yet realized that an entirely new kind of existence was possible for him, and that this new kind of existence was not only possible, but it was extremely desirable and well worth changing his age-old mode of life to obtain. He still had the mental outlook of the old eat-drink-and-be-merry-for-tomorrow-we-die days, and so the new wealth brought to him by modern science was still squandered in the old ways, with this difference only—that whereas in the old days his outbursts of extravagance and display were few and far between, he could now do so more frequently and more intensively. Gold ornaments took the place of silver; litigation, social

¹ In certain areas apathy and listlessness are much increased by malaria or hookworm.

expenses and other extravagances increased by leaps and bounds ; population multiplied and debt increased as fast as credit.

Then came the crash. Prices dropped to half in a night, debts doubled, credit went, crops were unsaleable, and except for a box of trinkets the villager had little except debts and perhaps a well-built house¹ to show for a period of prosperity which he had never seen before and may never see again. This was all because he had never conceived the ambition to raise the standard of living. Had he done that, things would be very different now. The essence of a rising standard of living is security. It is no use rising only to fall again, as soon as things go at all wrong. The man who intends to rise is for ever saving, putting something by, and had he been so minded, the Punjab villager, with his memories of the terrible insecurity and uncertainty of the old days would not only have satisfied his ambition to rise by providing all the necessities of civilized rural life, but he would have endowed them too. But no, he was without ambition to rise, and merely extended and intensified his standard of show, luxury and extravagance. And with no one to teach him and no example to follow, how could the Punjabi learn how to make the best use of the new money which canals and high prices brought him ?

The past failure was due to the absence of a definite desire and determination to raise the standard of living,² and without that desire and determination, there can never be any hope of permanent improvement in village life, and no hope of spontaneous effort at self-improvement. The past is past, however, and it is no use crying over spilt

¹ But without light, air or any comforts or amenities.

² See pp. 23, 130.

milk. What about the future? What is being done to break fatalism and produce an incentive to self-improvement in the heart of the villager?

Good work, excellent work is going on all over the Punjab. You can travel all day and find nothing that offends either eye or nose. Village after village and *zail*¹ after *zail* have been turned into models of the new life. Marvellous changes have been made and there is a feeling of life and movement in the air. Have we found the incentive then? Will this work last and spread? Alas, no! This work is not being done by villagers determined to live a better life but by villagers determined to please their District Officers. A good enough motive in its way, but not the motive we are looking for. There is no permanence about this kind of work. What if the District Officer's attention is diverted elsewhere, or he wants something different done, or in a different series of villages?

Neither easy prosperity—witness Lyallpur, for more than a generation perhaps the richest peasantry in the world—nor debt are incentives to hard work and self-improvement. Hunger is no incentive. The hungriest areas are often those with most work waiting to be done. Money for money's sake is no foundation of a better village movement.*

Man shall not live by bread alone. Man needs something more than food or money. The mere increase of wealth will not make people either good, clean, happy or peaceful. Man must have ideals, a spiritual inspiration. It is what money can buy that must be the incentive. In some countries this vision of better things and living examples of a better way of life have been provided by

¹ A *zail* is a group of villages, the subdivision of a *tahsil*, with a leading local landlord called a *zaildar* who is given a small honorarium to look after them.

various kinds of non-official agencies and institutions, and it has been this vision which has inspired the people to labour for the increase of their wealth and to use the new wealth they have acquired for achieving and securing their new ideals. The Punjab has had no such vision and no such ideals; greater wealth meant greater credit, greater extravagance and greater debts. Had such cultural institutions and agencies been adequately developed in the Punjab, it might have been possible perhaps for Government to leave them to instil the desire for better things, and itself to concentrate on the material side of the new life. But that is not the case, and it is Government's main task to teach the villagers so to want a better, fuller, happier, healthier life and to instil such a desire for higher standards of living, that they will clutch at whatever material means is possible of obtaining and maintaining them instead of having to have them almost forced upon them by Government.

The only real, true incentive is an inborn desire for something better for its own sake and not to please some outside authority. No village can be permanently improved from outside and no home can be permanently improved until its inmates themselves want to improve it. For permanence we must have spontaneity, and spontaneity means a burning desire for better things in the hearts of the villagers themselves.

This does not mean that all the good work now going on should stop. Far from it. Who can say that it will not sooner or later arouse the very ambition for better things that we are looking for? No; this work must continue, but the way to look at it is not as rural construction itself, but as a large-scale demonstration of what Rural Reconstruction is, a form of publicity or propaganda done,

under official stimulation and direction, by the people themselves, and conducted in the hope that those who join in it, or who see it, will be so pleased with the result and so impressed with the ease and simplicity with which, once they all work together, the result is achieved, that they will desire it, and organize themselves to obtain it, for its own sake, to please themselves and not to please Government.

Whether this would ever come about is needless to speculate. Our job is to take advantage of this widespread activity to lay the foundations of a real and permanent movement of spontaneous self-improvement.

What are these foundations ?

1. Village organizations.

2. Knowledge :

(i) Mass education ; i.e. publicity, propaganda, official persuasion, etc. ; in particular women's organizations and welfare work of all kinds.

(ii) School education, in particular girls' education.

3. Example and leadership.

4. A spirit of service.

Each of these will have a section or a chapter to itself. but, in a word, there can never be any permanent or spontaneous improvement of the village without some AUTHORITY, SOCIETY or ASSOCIATION¹ inside the village to plan the work and keep the people up to the mark.

KNOWLEDGE must be universal, and not merely the monopoly of a select few. Every man, woman, and child must know what is wrong and how it can be put right. For this, schools for boys and girls are not enough ; every

¹ See chaps. xi, xii.

form of adult and general education is required which our resources can command. This means the continuance and extension of the great Government drive now in progress, and the maximum development of all possible forms of publicity.

It is particularly the women and children who must be given the knowledge of better things, as it is the children whose ways are not set, who are free from the chains of customs, and it is the mothers and housewives who are responsible for the standard of living and who set the pace of civilization in town and country alike. There can never be any real desire for improvement in the homes until the HOUSEWIFE¹—the *gharwali*—knows what can and should be done to make home and village happier and healthier. No country can go ahead either of its women or of its children, so it is to these two classes to which we must make our greatest appeal. The easiest way of teaching and demonstrating and suggesting better homes and better farms is to have the EXAMPLE of better homes and better farms in every village for the people to see.

To uplift a country there must be a strong SPIRIT OF SERVICE abroad. The finest examples of this spirit can be seen in our own Royal Family. Not a day passes but they are busy in social work of some kind or other. National progress depends upon leadership and unpaid service. Every man and woman, official or non-official—and every child too—has a duty towards his fellow-men and his country, and this duty can only be carried out by the loyal and ungrudging devotion of time, effort, and money to doing whatever we can to help our fellow-men and women to a fuller and happier life. For the official, efficiency is not enough. Something more is required, human sympathy

¹ See chap. x.

and a spirit of service to breathe life into the dry bones of the administrative machine.¹

II. EXAMPLE

Government example. Whatever Government tells the people to do, it must do itself. Otherwise it stultifies itself and is wasting money and effort. It is no use telling villagers to be clean if those who visit Government offices, tehsils, thanas, and rest-houses with their petitions or other business find them littered with rubbish, or have to use the surrounding country for urinal and latrine. Mosquitoes must not be able to multiply on Government land or in borrow-pits dug by Government in the neighbourhood of homes or villages. The management of Courts of Wards Estates gives Government an excellent opportunity of carrying out its whole village programme in the most practical manner possible. And so on all through the programme. Government must be very careful to practise what it preaches.

The Government official's example. The Government servant, whether as servant or citizen, has a similar duty. Whether it is vaccination, or cleanliness, or girls' education, or thrift, he must see that what he or his colleagues are preaching is not given the lie by the life and conduct of himself or his family. He cannot teach one kind of life and live another. A high ideal, but we shall get nowhere without ideals, and if we want good citizens in the villages we must be better citizens ourselves, as the essence of progress is leadership.

¹ In the *Punjab Land Administration Manual*, the Collector of a district is likened to the steward of a great estate. A rare simile. The principal care of a modern steward is the welfare and happiness of his lord's tenants and dependants.

The example of the educated classes. Perhaps the biggest responsibility falls on those who have had the advantage of higher education and have seen or should have seen the new light of better living. If they do not help to uplift their less fortunate brethren who else can ? All institutions of higher education and learning should therefore pay the very greatest attention to this whole subject and as far as possible see to it that no student shall fail to acquire both a full knowledge of the new life and a firm determination by example and precept to spread it wherever his future career shall take him.¹

The rural leader's example. Human beings are *bhêr châh*, sheep through a hedge ; where one goes the rest follow. The best way, therefore, of getting people to do new things is to show them working models. As long as you merely talk and explain, simple people are hard to convince and harder still to move to action. Show them the thing itself in working order and they will jump to it at once. We must therefore have working models of better homes and better farms in every village. We do not want official farms and homes everywhere, as what Government does is always suspect. No one believes that Government has done what it does without special powers and special expenditure. We want ordinary workaday models in ordinary daily use by ordinary people. And we can have them. In every village there is someone, and in many villages several people, who are in common duty as good citizens, bound to carry out to the utmost the rural policy of Government. In return for the favours and kindnesses it continues to show them, Government should insist upon their doing all in their power to live the new village life in their homes and on their farms. These favoured people,

¹ See p. 230.

are the jagirdars¹ and zaildars,² the rural gentry and bigger landlords, ilaqdars,¹ inamdars,¹ sufedposhes,¹ lambardars,³ patwaris,⁴ ex-military men, schoolmasters, and soon, we hope, schoolmistresses too.

Many of the zaildars and their assistants are already doing a very great deal to help, but some are getting other people to do things rather than setting a complete example in their own homes; and a certain number of them are doing this work less for its sake than to please Government.

The bigger landlords have not yet as a class begun to pull their weight in the village, and in their own interests just as much as for the sake of the country at large, they must abandon their suicidal policy of neglecting their estates and tenantry and dependants and their general duty to the countryside that gives them their living and position. There are notable exceptions to the general rule, of course, and in some ways the Punjab landlords are very good to their tenants and dependants, but not in the way of making themselves and all around them living, working models of the new village life. And so too with all the rest of the rural leaders. Their position includes responsibilities as well as rights and privileges. Many of them are in receipt of actual honoraria of one kind and another, for various services rendered or to be rendered, and all these favours carry the definite condition of active loyalty. How can loyalty be better shown than by carrying out to the full, during a critical period of depression, the measures designed by Government to defeat that depression?

¹ Rural dignitaries with government titles and honoraria.

² See p. 7, n. 1.

³ Village headmen.

⁴ Village revenue accountants and field mappers in charge of the village doomsday books.

The lambardar's office is hereditary, and the lambardar depends more on birth than on merit for his position. But is it not time that he should be at least able to read and write? In a world that depends so much on the written word, and under a Government that is straining every nerve to make the people literate, can an illiterate man adequately represent Government in the village? Is it not time that all new lambardars born after say 1930 should be 'primary pass'? And a few years later let the standard be raised to 'middle pass'.

The education authorities are trying to make the schools the centre of light and leading in the villages, but the average village schoolmaster is low-paid and poorly educated, and his wife often has no training or education at all. A beginning is being made with small domestic-training classes for village schoolmasters' wives, so that they may be able to help both in and outside the village school, and enable their husbands to set the example they should of the new life.

Fifty years ago the patwari did whatever was then known of village uplift; he reported crime, disease, and other calamities. Even now unofficially, he often takes a leading part in the campaign, but officially his services are not supposed to be diverted to this new work, and his frequent opposition to such items as the consolidation of holdings is taken for granted. The patwari could easily be the village guide and leader; and that without any detriment whatever to the performance of his other duties, as it is not his time we want but his goodwill. But he would first have to be somewhat modernized. At present he is a bit out of date; his education and outlook are much the same today as they were a generation ago. To fit him to be the principal local agent of village uplift, the patwari would

require a better education, as careful a training as the schoolmaster gets at Gakkhar Normal School, and better pay and prospects. The cost would run into lacs, but the all-round gain to the villages would be measured in crores.

As for the ex-military man, the Army is now making rural reconstruction a subject for the training of the serving soldier. Besides being an excellent general knowledge subject, by reason of its being the domestic concern of every soldier, rural reconstruction means healthy recruits and contented pensioners ; it is one more link between the officer and his men and between the regiment and its recruiting area. Putting it into the curriculum of the young soldier was an altogether happy thought, and will bring a very powerful ally into the field to help us. Although district authorities will have to pay special attention to the returned soldier, the soldier himself must not expect the millennium to dawn in a week. He must expect disappointments, and rebuffs, and he must even be ready to find those from whom he had expected help trying to side-track him and thwart his efforts. The village is still full of factions and vested interests, and sometimes petty officials are still petty. But if he puts his own home and farm right,¹ bands himself together with others who are doing the same and refuses to be drawn into factions, he will win through in the end, and be enabled to lead his village to better things.

Conclusion. Until the privileged classes adopt the new pattern of living it is useless to expect the ordinary villager to make a move. The poor and the humble always ape those who are supposed to be socially superior or more

¹ He can at once set a wonderful example of thrift by keeping a savings bank account, taking out insurances, etc.

wealthy and therefore to know better. They will copy hard work, thrift and culture when they see them just as they now copy extravagance, idleness and a low standard of living. The new life must therefore begin from the top, not from the bottom, and leaders must be made to lead, if we wish it to spread of its own accord through the countryside.

CHAPTER III

FIRST PRINCIPLES (*cont.*)

I. SELF-HELP

SELF-HELP must be the invariable rule of work. The main job of Government is to plan, teach, train, organize and supervise. The actual work and the actual payment must be done by the villager himself. There are some 35,000 villages in the Punjab, and if Government attempts to finance or carry out actual work in even a tenth part of this number, its resources will at once be exhausted and it will no longer be able to do the essential work of planning, organizing and co-ordinating which it alone can do. Government revenues are strictly limited, and tend to decrease rather than increase, so that any movement that relies solely upon them for the actual work is doomed to perpetual limitation and eventual stagnation. If the people themselves provide the money and do the work, the only limit set to expansion is the enthusiasm of the people themselves and the steadily increasing resources which the movement brings to them.

The Punjab Government has just launched an intensive scheme,¹ providing five lacs the first year rising to fifteen the third and taking in a fresh tahsil in each district each year. Five lacs will go nowhere in twenty-eight tahsils, but if the people co-operate, Government's five lacs immediately become five crores. We have now got

¹ This is separate from the many extra lacs provided in the ordinary departmental budgets.

provincial autonomy, but self-government cannot possibly be better than the people it governs. If, therefore, people want a vigorous and helpful Government, they must be vigorous and helpful themselves.

Work and payment are tonics. Doles and free issues kill initiative. Years of free quinine and free bulls, so far from teaching the people to buy their own have convinced them that these things must always be given free. No one appreciates free stuff. If you hand a book to a visitor free of charge, he will leave it on your office table when he goes away. If he has to pay for it, he will read it and make his whole family do so too.

Self-help brings pride and self-respect. 'We built that school', 'We made that road', 'That is our bull.' And self-help leads to more self-help. Once people find that by their own unaided efforts things can really be made more comfortable, they will try again and again and again (see pp. 167, 170). Some people say 'Don't ask the village or the villagers to spend any money.' The Royal Commission said the opposite. It is the desire to spend in order to achieve a higher standard of living that must be the main incentive to thrift, hard work and good farming.

I do not say that Government or the District Board must never give any financial help, but it must never give the whole sum. The village or the individual must give as much in money as they possibly can, and must of course provide the labour. It is wrong to pay any one who is not actually starving for doing his own work.

There is a favourite argument one often hears from those who are trying to get out of paying for necessities, so that they may keep their own money for extravagances: 'Oh! what about the poor? How will they get these things?' Leave the poor alone for a bit. Why this sudden anxiety

about them? Let all those who can pay buy what they require, and then we shall be able to see who is left, and by the time that has happened and the generous villager has given a little here and a little there to friends and neighbours whom he knows are hard up, there will be precious few left for free public charity. Whatever it is, whether it is bulls or doctors' fees, payment must be made fashionable. The villager must be too proud to beg or to be beholden to any one for money, services, or anything else that he can possibly pay for or provide himself.

In village discussions remissions of land revenue are often put forward as the ideal method of improving village life. Remissions, however, will not help, and will in some ways only make things worse. They will cripple Government on the one hand while on the other they encourage the villager to think that no effort is required of him. The actual relief to the individual villager is often only measured in annas, whereas we can teach him to increase his resources in terms of many rupees. Special remissions are doubtless necessary in special circumstances, but they are another disaster themselves. The first and principal sufferer from remissions is always the villager, as when money is scarce it is the outlying dispensary and school which have to be closed and the village road which cannot be mended. Moreover, nobody pretends that reduction of land revenue or *abiana*¹ will stimulate better farming or develop leadership among the villagers. It is only where self-help and initiative are well developed that reduction of taxation stimulates progress. Most of what is now being done to improve the village is being done entirely by Government effort, whether it is vaccination, ventilation or better seed. Government therefore wants all the revenue it can get in order to teach

¹ Canal water rate.

the villager better ways of living and farming and to instil into him the ambition to raise his standard of living, which will in turn stimulate him to work hard, think hard and organize himself in order that he may realize his ambition to rise in the scale of human existence. If we fail and remissions have to be the order of the day, Government will have to reduce its own standard to that of the worst farmer and the most careless and thriftless villager !

The best of all forms of self-help is the co-operative society which is dealt with in Chapter XII. Co-operation is not only self-help but mutual help, and its organization can be made largely self-supporting.

The panchayat¹ is another form of self-help, as it can levy both money and services for community work and can also help to pay for its own supervision. So of course are the Boy Scout movement, the Red Cross and all other associations which organize people to work or to pay or to do both for the common good.

II. HOW TO START WORK

In a district I feel sure that the best way to start is by a barrage of publicity² and mass instruction so that the pros and cons of rural reconstruction may be discussed in every village. Meanwhile a *Dehat Sudhar* Committee³ should be formed to draw up a programme item by item, start a village newspaper⁴ and to chalk out and execute a plan of campaign. An Officers' Board⁵ is, of course, essential to get the best value out of the efforts of Government.

¹ See p. 157.

² See chap. xv and appendixes i-v.

³ Rural Reconstruction Committee ; see p. 197.

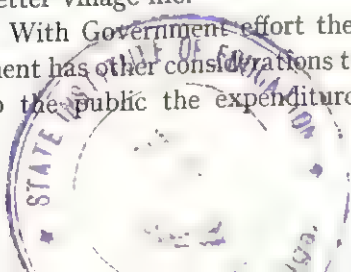
⁴ See pp. 200, 215.

⁵ See p. 195.

To the individual I would give a word of warning. Abandon all idea of superiority and patronage ; the village is the most ancient institution in the world and must be approached with respect and humility. Do not expect to be received with open arms ; the village has long been exploited by outsiders and is very suspicious of strangers. The village is full of ancient knowledge and experience ; you must learn therefore before you can teach. Get into the village—live in it if possible—learn its language and its ways. Discuss with the villager his problems and difficulties and their remedies, work with your own hands, and in time if you are really sincere and in sympathy with the villager you will win his confidence and be allowed to advise and help. Once the villagers have confidence in their advisers they will work and they will pay. But they will not trust those whose object is not the villagers' welfare but their own credit or promotion. The first essential, therefore, whether for official or non-official workers, is sincerity.

As for the order of the work itself, the thing to be done is what the villagers want to do first. It is their village, it is they who must work and pay, and so it is they who must chalk out the programme. The social worker's task is to inspire, suggest and stimulate. But until women's education and women's institutes or associations are introduced and some form of village organization is built up, the permanent regeneration of the village has not begun. The village worker must therefore be very careful to learn and to teach his lesson aright so that as early as possible he may be able to lay the real foundations of a better village life.

With Government effort the case is different. Government has other considerations to attend to. It must justify to the public the expenditure of public money. Public



9499



contentment means peace and good order, easy economic conditions mean the ready payment of taxes ; widespread epidemic diseases and dirty squalid villages are a menace to Government prestige. Quick and simple things like better crops, better cattle, clean villages and epidemic control must therefore find an early place in a Government programme of rural betterment. But the impermanence of all work not based on the improvement of the condition of the women and on village organization applies even more to Government than to private work, as spectacular results in the field of economics or health may lull both Government and public into complacency.

By themselves the increase of wealth and the reduction of mortality, leading directly to increased population,¹ may merely use up any possibilities of increased resources upon which a higher standard of living might have been based, before the people have begun to desire it.

Sooner or later, therefore, and the sooner the better, Government must set about laying the only genuine foundations of permanent civilization in the shape of women's education, training, and culture, and of village organization. And of course it must insist upon a proper example being set by those who should do so, both official and non-official.

III. THE STANDARD OF LIVING

At the risk of repetition, it must be emphasized that our goal is not economic. It is social—the raising of the whole standard of life.² Economic improvement is a by-product

¹ See pp. 25, 131.

² As long ago as 1912 His Late Majesty King George V speaking at Calcutta said, ' It is my wish that the homes of my Indian subjects may be brightened and their labour sweetened by the spread of knowledge, with all that follows in its train, a higher level of thought, of comfort and of health.'

of the urge to social improvement. It is not the stimulus to self-improvement, nor can it be the whole objective of a campaign of rural reconstruction. When the people desire a higher standard of existence they will, with the help of Government, work out their own economic salvation. Till then increased income merely means increased population and is an actual danger, as it is using up in advance the possibilities of supporting a higher standard of living that otherwise might have been available when the desire to raise it had at last been created. As the Royal Commission on Agriculture pointed out, it is merely postponing¹ the effect of the growing pressure of the population on the soil.

In actual practice, particularly where poverty is a serious problem, the best way to the villager's heart is often through some obvious benefit like good seed or good bulls. But these things are only the opening gambit. Our main task is, in the words of the Royal Commission on Agriculture, 'to stimulate the desire for better living'.²

Once this desire has been stimulated, the villager will want the means to satisfy the needs of his higher standard of living. The economic side of the programme will help to provide them. To quote the Royal Commission again, 'What is required is to increase in desirable directions the number of the villager's wants and to show him how to satisfy them by his own efforts. We trust that the whole weight of those to whom the villager looks for guidance will be thrown into suggestions how to improve, during his spare time, the amenities of the village.'³

The order of events is therefore (i) to attract the villager's attention and gain his confidence by something easy and

¹ *Report of the Royal Commission*, p. 499, para. 420. This whole paragraph should be carefully studied.

² See pp. 2, 6, 130.

³ *Report*, abridged edition, chap. xii, p. 59.

obvious ; (ii) to stimulate the desire for better living ; (iii) to show him how to improve his economic condition so that he may satisfy his new needs.

It must not be thought that in stressing the non-material objective of Rural Reconstruction, I wish to deny the existence or the urgency of the problem of poverty. Poverty is there, and plenty of it, and its removal is a vital necessity. But the removal of poverty as an end in itself, is bound to fail. Nothing impresses one more, as one moves about the villages than the very great deal of obviously profitable work waiting to be done and the amount of actual wealth now being wasted. And this indifference to the means of economic improvement is often more obvious in the poorer than in the better-off parts of the province. Poverty is no stimulus to hard work or to thrift. In fact, the greatest progress is being made where poverty is a less serious problem, and more money is being spent by the people on domestic amenities than on wealth-producing activities. But the poor cannot give a lead in thrift and hard work. Rural Reconstruction must begin from the top. Those who are not obsessed with the problem of the next meal, must be given a new pattern of living to work and to save for. Once they set the example the poor will copy them just as they now copy them in waste and idleness. Then and then only will the permanent solution of the problem of poverty begin to be possible. This does not mean that the poor must be neglected. Far from it. Work must go on among all classes but the real objective of better living must never be lost sight of and it must be realized that, urgent though the removal of poverty is, work devoted to this end, unless combined with work for the raising of the standard of living, can only be a temporary palliative which in the end may lead to even greater poverty.

There is one last point to consider. What about the ever-rising tide of population¹ which threatens to submerge all our efforts to improve the village? The subject is very difficult but several things may perhaps be said. The birth-rate seems to be very definitely connected with the standard of living. The standard of living² depends less on creature comforts than on imponderables—culture, sweetness and light—and the things that make life more graceful and more gracious. Mere wealth does not necessarily mean a high standard of living any more than poverty necessarily means a low standard. It is the way wealth is used, and not its amount, that determines the standard of living, and it is the outlook and mentality of the people that determines how wealth shall be used. One of the first signs of a rising standard of living is thrift and the accumulation of savings so as to banish the fluctuations of plenty and scarcity, and to secure whatever progress is made. The standard of living—civilization if you like—can be judged by four tests: (i) cleanliness, personal and communal; (ii) the position given to women; (iii) intelligence—including of course co-operation—applied to work; (iv) the use of spare time and money.

The following things point to a high standard of living: light, air, cleanliness, tidiness in the home; chimneys for the smoke; tasteful pictures and simple and home-made decoration; flowers in the courtyard; clean, well-kept, orderly, healthy, happy children (but not loaded with trinkets); regular well-cooked meals and an orderly home regime; clothes simple and tasteful, not necessarily expensive; decent though simple washing and latrine arrangements; some books, newspapers, medicines, a sewing-machine and usual equipment for making and mending

¹ See p. 131.

² See p. 130.

clothes ; a haybox but not dung-cakes, a *kharā*s rather than a *chakki* for grinding the corn, a wheelbarrow rather than a basket for carrying rubbish ; membership of co-operative cultural and recreational societies, savings bank accounts or insurances, organized games, general literacy ; all vaccinated and revaccinated, a general air of well-being, contentment and intelligent interest in life. All these are marks of a high standard. Expensive clothes, worn untidily and not too clean ; bursts of extravagance followed by want ; dirty children cluttered with ornaments ; quarrelling, discontent, indiscipline, disease ; irregular meals, badly cooked ill-balanced diet ; lavish display accompanied by squalor and ignorance, illiteracy, the absence of books, pictures, medicines ; the calling in of a dirty dai (who is only paid a rupee for her work) and the spending of huge sums on fireworks and so on for the birth of a son—all these are marks of a low standard of living.

In the old days life and livelihood were hard and insecure and man was the sport of climate and disease. Nature, ever anxious for the continuity of the species, responded with a high birth-rate ; and man, uncertain of the future, took no thought for the morrow and spent as he earned.

Famines and epidemics have now been largely controlled, agricultural and industrial production have been greatly increased but the old outlook and mentality have persisted.¹ The standard of living is still low and every reduction in mortality and every increase in production is answered by an increase of population.

If Government's efforts are, therefore, confined to increasing wealth, the population curve will continue to soar. The teaching of the best use of money in improving home and health is even more important than the teaching

¹ See p. 5.

of its acquisition. As long as home is a warren and the production of children brings no responsibility and little added cost, so long will the only limit be the food supply available. As soon as the production and upbringing of children is regarded as a sacred and expensive responsibility and as soon as every parent determines to give his children a better chance in life than he had himself, the limitation of families will become general.

A vigorous attack upon the standard of living must, therefore, be the main object of the Rural Reconstruction campaign.

CHAPTER IV

CONTRIBUTORS

THERE are many contributors to the prosperity of the countryside.

Providence. This provides the sun, the wind and the rain. We often grumble at Providence but we have absolutely no right or business to do so until we have done everything which brains, muscles, co-operation and capital can possibly do to deserve good health and a good harvest.

Government. This conducts research and disseminates information ; it organizes, teaches and inspires, but it cannot either do the actual work or pay for it. These the villager himself must do. Government can design ploughs, evolve new types of seed, and discover the remedies of diseases, but the multiplication of the seed, the buying of the ploughs, and the using of the remedies must be done by the farmers themselves. The most Government can do is to create conditions in which the villager can utilize his money, brains, and labour to the best advantage. The present policy of Government is to reduce taxation to the minimum, leaving the villager's money in his pocket, for him to spend on what he thinks he needs most. Government tries to teach the villager what he ought to want, such as good seed, good ploughs, hospitals, schools and trained dais, in preference to litigation and ornaments and showy wedding parties.

The farmer. By thrift and by hard work both of mind and body, and by joining with his fellows for all his

business, the farmer must make the best use of all the other elements of rural prosperity. He must take the same pride in his farm and his village as his goodwife does in her home and he must work as hard to improve them as she does to keep it nice.

*His partner.*¹ In countries of smallholders it has been calculated that the housewife is responsible for three-quarters of village life. She holds the purse and keeps the family exchequer solvent. The goodman's main task is to bring home raw produce or money. It is the wife's skill and knowledge that converts them into a well-cooked, tasty and balanced diet and strong cheap clothes, it is she who keeps the children happy and healthy and the home bright. No nation can be prosperous where the homes are squalid or neglected; no home can be healthy, bright and happy where the housewife is ignorant and untrained; and no country can advance faster than its women.

The land. This gets little but abuse, but in fact land is largely what the farmer makes it. There is no commoner complaint than that the fertility of the soil is decreasing, and yet the first duty of the farmer is to maintain and if possible increase the fertility of his land. Poor soil means poor food. The more capital and labour he puts into the land by way of embanking, terracing, draining, ploughing, manuring, harrowing, weeding and watering, the larger and the more certain will be his crops. Land is a national asset and its misuse or slack use is a national sin and helps to increase unemployment.

Cattle. The cattle are as important as the land, for on them the farmer relies both for power and for manure, and his wife for milk and ghee. Good cattle require good food, careful attention, protection from disease, selective

¹ See p. 109 and chap. x.

breeding ; and a few good cattle are worth many bad ones. Farm horses in England work on the average for twenty years. The average working life of a bullock is probably not more than six years, whereas if it was really well fed all the year round, well kept and fairly treated, it would work for perhaps twice as long. What a saving of capital !

The capitalist. He should devote his capital to the financing of farming and the development of the land and of rural industries. He must discourage all waste and extravagance and refuse to advance an anna for unproductive expenditure. He must nurse the village through bad times and encourage all kinds of thrift, saving and development.

The shopkeeper. He must always look for better seeds and crops and implements and try to push their sale, while for the housewife he must stock household necessities and useful medicines and utensils, and materials which her skill may use to make her home bright.

The artisan. He must learn new and better ways of processing the produce of the farm, so that as little as possible need be dumped raw and unprocessed on the market to the loss of himself and the village. He must learn to do running repairs to the improved implements of the farmer, and some of them he can even make himself, as well as quite a lot of other useful things for home and village.

The village official. Be he doctor, patwari, postmaster, schoolmaster or any other of the many officials who serve the countryside, he must be definitely on the side of the angels. He must discourage quarrelling, faction, law-breaking, bribery and crime. He must encourage thrift, savings banks, co-operative societies, better seed, better farming, better homes, better games, better everything.

He is the villagers' servant,¹ friend, and adviser, and must go out of his way and work overtime to make the village, and therefore himself and his country, happy and prosperous. No pains are too great for him to take, and nothing is too much trouble if thereby he can help his master the villager.

The menial. His position is not too bad in the Punjab and is rapidly improving. He must do his work honestly and well—what is worth doing at all is worth doing well—knowing that this is his best hope of progress and that his future prosperity is bound up with the prosperity of the village. If his task is to keep the village clean, his village must be the pride of the neighbourhood; and if he makes shoes and leather goods they must be the best that skill and good leather can make. He will at least deserve success.

¹ See pp. 9-10.

CHAPTER V

HOME AND VILLAGE

I. GENERAL

1. **The Home.**¹ Domestic architecture in the Punjab, whether *kachcha* or *pakka*, is generally very good. In the old villages the houses are often very cramped, but that is inevitable, and the only remedy is to rebuild, which some of the consolidated villages in the Doaba are already seriously contemplating.² In the Canal Colonies, however, where there is plenty of space, the actual housing is all that could be desired.

As a general rule the interior of the home, except where the housewife—as for instance in parts of the south-east of the province—has more than her fair share of field work to do, is kept spotlessly clean and tidy. The walls and floor are leeped at frequent intervals, the pots and pans are all polished till they shine and are arranged in orderly fashion on the walls. There is often much tasteful decoration, and a few bright pictures and bits of coloured paper. The floors are in some parts leeped a greenish colour with the help of some vegetable material. Outside too, both on the small raised platform and where the cooking and housework are done, all is spick and span, and much light-coloured clay is used both inside and outside to make the house nice and bright.

¹ For blue-prints of plans see p. 288.

² Once people begin to live on their farms there will be more space for those left behind in the old *abadi* to spread themselves.

The goodwife is hardworking and industrious, with an orderly methodical mind and excellent taste. If only the goodman took the same jealous pride in the rest of the village and worked his farm with the same untiring industry as his wife runs the home, the Punjab would indeed be a paradise !

Where improvement is possible and desirable in the houses of both old and new areas is in the necessities and amenities of the home—in the plumbing department, so to speak.

2. The Village. The streets are usually narrow and crooked, and are often blocked with projections of one kind or another. These defects will be hard to remedy without some organization in the village which commands confidence and respect, and will gradually set back, re-align, and improve, where it cannot entirely rebuild.

The streets must be clean,¹ and that is difficult without paid workers. This, too, means organization. In fact no, village in the word can be kept permanently fit to live in without a resident administration, call it parish council, panchayat or what you will.² A co-operative society might help, particularly if all or at least a large majority of the householders were members ; but in general the panchayat with its statutory powers for finance and sanitation and every other kind of work will probably be the best form of organization.

The area immediately round the outside of the village houses is at present a terrible eyesore. And nothing can be done with it as, whatever its original state, it is now nearly

¹ Paving is not essential but it is a very popular amenity and is gladly paid for and carried out by villagers as soon as they begin to work for their own improvement. It is one of the first signs of a dawning ambition for better things. See also pp. 130, 169.

² See p. 157 and chaps. xi and xii.

always in the possession of various individuals and has ceased to be common land. As a result, only certain people can dig pits for refuse near the village, there is no place for public latrines, no clean space for the little children to play in, no recreation ground for the lads, and no place for any other community purpose. This private possession of the land, however, does not stop all and sundry from dumping rubbish anywhere and everywhere or from using the whole area as a latrine. Foul pools of black mud and water abound. Everything is dirty, untidy, and higgledy-piggledy, and no one can be held responsible. The bigger the village the bigger the horror of it all! These villages can be cleaned up by a mighty effort by official order or pressure—but they will never stay clean and tidy without (i) a local authority to administer the village and (ii) the 'nationalization' or the reversion to the community, of the area immediately round the houses. This latter means the consolidation of holdings, whereby all this area is reserved both for community purposes, pits, latrines, recreation ground, etc., and for future expansion of the housing area. By a local authority is meant either the Consolidation Society,¹ the Better Living Society,¹ or the Statutory Panchayat.² Once consolidation has been carried out, the rest is easy and simple. Orderly rows of pits are dug, the waste water of the well is drained away to trees and vegetable patches, depressions are filled up, the cattle tanks removed to a suitable distance, a recreation ground is provided, and every other village need supplied.

II. WHAT MUST BE DONE

The first three essentials of healthy homes and villages are light, air and cleanliness, and we will take them first,

¹ See pp. 168, 173, 174 and chaps. xi, xii.

² See p. 157.

before touching the many other improvements possible in the village and the home.

1. **Light and air.**¹ More and more windows and ventilators must continue to be opened until air circulates in every room and there is enough light for a mouse to be visible in every corner. I think even smaller things than mice should be visible, but for the present let us be content with that ! The Punjab standard ventilator has bars outside, gauze or sparrow-wire² inside, and is fixed just below the roof or ceiling. The sides are extended some inches beyond the ends so that they may be embedded in the walls and give greater security. It has a shade outside, and on the inside the walls on both sides and the bottom are cut away in a long slope to let in as much light as possible. The top wall is flat. The sloping sides should be whitened with lime wash or white clay to let in more light.

The standard ventilator does not open and shut. We cannot yet trust the goodman and his wife not to keep it always shut if once they can shut it at all ; and if properly fitted, with sloping sill inside and the bars outside the gauze, it is difficult to block up. The usual faults are to make the ventilator too small or to cut the walls straight instead of sloping them. Straight walls mean that very little light will come in. People are also very fond of putting the bars inside—they say that, if put outside thieves will use them to pull the ventilator clean out—and then things can be stuffed behind the bars to block the ventilator !

When houses are back to back—this should be avoided in all new buildings—roof ventilators are required, and the simplest form perhaps is the galvanized iron pipe with a

¹ See pp. 277 (2), 283 (10), 288 (7-11).

² Some people prefer sparrow-wire as this lets out insects which have found their way in by the door.

cowl on top, both painted white inside to let in more light. Earthenware skylights and plain holes are popular, but these are usually too small and too easily shut and never reopened ! In Rohtak and elsewhere a big square skylight covered with an iron grid is common in their deep pillared rooms. These are excellent, but even so the back room still requires a ventilator. Windows are common, but unless they face the courtyard they are apt to remain shuttered and are rarely a good substitute for the clerestory ever-open ventilators. For the well-to-do, a glazed and hinged window is suggested, with fixed bars and gauze.¹

The objections to ventilators are the fear of thieves and the hatred of cold. As for thieves, if every house is ventilated all are equally vulnerable and the number of thieves or their average income will not increase on account of ventilators ! Besides does not the villager protest that there is nothing in his house nowadays worth stealing ?

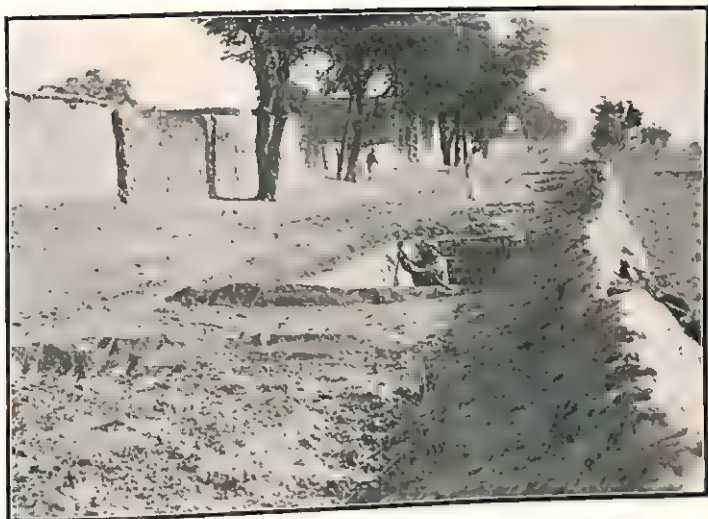
As for cold, sheep abound and there is plenty of spare time to weave woollen cloth² and blankets as the men of Kulu do. Some of the many ear-rings still common on men and children alike might be exchanged for warm coverings.³ Tuberculosis and cerebrospinal meningitis are an ever-present menace, and whatever the objections may be, it is a plain fact that for health and for freshness, both of body and brain, light and air are absolutely essential. Without them neither mind nor hand will work really well, and therefore they are one of the pre-requisites of the better village life, and no argument against them can be considered.

2. Cleanliness. Cleanliness can be divided into four categories :

¹ In addition to the ventilator, of course, not a substitute for it.

² See pp. 255-7.

³ See p. 112.



DIGGING A PIT

The beginning of clean villages and good crops



FILLING DEPRESSIONS

To prevent mosquitoes breeding and to provide ground for village games

- (i) Personal cleanliness,
- (ii) Waste, rubbish, refuse and dirt of all sorts,
- (iii) The proper disposal of waste water,
- (iv) Latrines.

(i) *Personal cleanliness.* Daily washing, particularly of children, and the regular washing of clothes, are essential, but we need not dilate on it. For the importance of keeping eyes clean see pp. 115-18. Whatever other chores are given to the women to do and whatever help they give in farming, industry, and cattle-keeping they *must* be left sufficient time to look after their children properly.

(ii) *Waste, rubbish, refuse, etc.* Pits are the beginning and end of this part of the problem, and into them must go everything, absolutely everything, in the way of rubbish, refuse, waste and dirt from house, kitchen, compound, stable and street. There are two kinds of pits :

(a) the compost pit,¹

(b) the collecting pit.

The compost pit is dealt with in the next chapter.

The collecting pit is, as its name suggests just a rubbish dump. When full, it must be covered with several inches of earth and left to rot. If water is added occasionally the contents will rot quicker and so be ready sooner for the fields. To find out whether water is wanted, grub a hole a foot deep in the manure. If it is not really hot and damp, give the whole pit a good sprinkling of water.

Its depth. Manure rots quickest and best when air can get at it—aerobic action, this is called. Research has shown that a slowly filling six-foot pit gets all the aerobic action necessary for the production of good manure before the refuse is buried too deep for aerobic action to continue. From the health point of view the smaller the surface of

¹ See pp. 65, 277 (1).

rubbish exposed to the wind and the flies the better, and this means deeper pits. Besides, land is very scarce round many villages and the deeper the pit the smaller the area required. Collecting pits therefore should be six feet deep.

Its position. Another question is where to dig pits. The nearer to the houses and stables, the more likely are they to attract the rubbish and refuse. The farther away the more likely are people to throw their rubbish down half way there. As long as pits do not contain night-soil they will not cause much offence to health, and so the rule is to dig the pit as far away as possible but not so far away that anybody is tempted to dump his stuff before he reaches the pit. In many villages land cannot be found for pits until consolidation of holdings is carried out (see pp. 57-9). A solution found in some places is to arrange land on lease (for cash or a portion of the manure) for pit-digging. The revenue staff can usually arrange something if the village is really anxious to improve itself.

In digging and using pits the following instructions must be carefully followed :

(a) Never take manure out of a pit until it is thoroughly rotted (see p. 66). This means that every cultivator must have at least two pits, one rotting and one filling.

(b) If the water level is very high or the ground is stony, then an enclosure is as good as a pit.

(c) To keep out donkeys and pigs and other animals and to prevent children playing in them there should be a low earth wall round them, particularly towards the village, to ensure that rubbish shall be thrown clean into the pit and not piled on the edge. These walls, and in sandy soil, the sides of the pit as well, should be leaped at regular intervals. If necessary protect pits with thorns.

(d) There should be steps or a slope at one end to enable the refuse to be removed when ready for the fields.

(e) If pits are occasionally watered, their contents will rot more quickly.

(f) The pit should never be dug inside the *ahâta*.¹ This is done in some Canal Colonies, but it should be discouraged as without very intense supervision it is sure to be a cause of offence.

(g) The length and breadth depend upon the amount of rubbish and dung likely to be deposited in them, but if they are to be screened off and used as latrines they must not be too wide for whatever footboards are available. The rubbish pit is by no means an ideal latrine but it is better than no latrine at all.² If so used, it must have a screen round it for decency and planks or logs across it to squat on. A few handfuls of earth should always be thrown in after use, and the day's rubbish and sweepings should be carefully thrown under the foot-planks, and these planks moved along the pit as it fills up.

As pits are an agricultural as well as a sanitary necessity, they are again dealt with in connexion with the farm (see p. 65). For fuller particulars see the *Pit Pamphlet*.³

(iii) *Disposal of waste water.* This is one of the biggest problems of village sanitation, whether the water comes from the house or from the well. Hand-pumps are very popular in the villages and very numerous, but without some arrangement for absorbing their waste water they will only spread dirt and smell and possibly malaria too. Waste water from wells generally works its foul way down the village streets to a still fouler pond. The pond is itself

¹ The small compound of a village house.

² See p. 42.

³ See p. 280 ; also pp. 277 (1), 288 (15).

another problem, however, and will not solve the well problem.

Brick drains are not ideal, although they are far better than a black ooze trickling down the village street. If there must be drains, they should either be half-pipe concrete drains or made of properly shaped drain-bricks. A drain of right-angled section made of ordinary bricks will never be clean. Drain-bricks¹ have a semi-circular trough in them and must be specially moulded and burnt. In Hoshiarpur district underground concrete drains² with open joints are very successful where the subsoil is sandy.

It is suggested that if properly screened washing places³ were built on the wells and the women washed themselves, their clothes and their children there, less water would have to be taken to the houses and so there would be less waste water to dispose of and no house drains need be made at all. This is being tried in various places. On the Skinner Estate near Palwal a purdah wall has been built all round the well, but the usual washing place is an oblong structure, often with a water-pipe running into it from the well. At Khanewal on the B.C.G.A. Farm, a purdah bathing ghat has been built on the canal channel just outside the village.

One use for waste water is to grow trees for fruit and shade. I have seen this device in a Salvation Army Brigadier's house at Batala. He dug and refilled a big trench in his backyard—which was no bigger than the ordinary village householder's—and planted it with grape vines which he trained to make a roof for his veranda—leafless and sunny in winter, cool and shady in summer, with scores of bunches of lovely grapes! This absorbed all the waste water of a small hand-pump. Obviously grape vines, a flower or vegetable patch, a row of papayas, bananas,

¹ See p. 289 (18).

² See p. 290 (1-3).

³ See p. 288 (4).

or trees of some sort could easily absorb all the waste water not only of a house, but also of a village well or of a mosque. The more the waste water the bigger the plantation and the more the shade, the profit and the beauty. All waste water from the houses or from the well (including any washing places or water-troughs or other conveniences), must run together in a *pakka* drain to the nearest space where these things can be grown.

Soak-pits,¹ unless really big and deep and well constructed, are rarely satisfactory, and I cannot help thinking that the use of all waste water for the growing of trees and vegetables is the best solution of the problem.

(iv) *Latrines*.² The villager fights shy of latrines, probably because until yesterday the only design of latrine known was a very smelly affair which depended on constant and conscientious 'service' to be at all usable. New designs, however, are now being tried out, depending not on service to keep them free of smell and offence but on a hole in the ground. In certain villages of Gurdaspur District the Government Health Department is trying latrines for each householder as part of the campaign against hookworm. Elsewhere the people are very slowly being persuaded to have public or private latrines, particularly for women, who suffer most from the present immodest and insanitary custom. The household latrine will probably be found the more popular (and will naturally be kept cleaner), with a few public latrines for strangers and those who cannot have their own, but the present habit is vile in the extreme. Children cannot be taught clean habits, self-control and self-respect without sanitary

¹ In sandy soil and at a good distance from wells and pumps a bored-hole of the kind drilled for latrines would be worth trying.

² See p. 110.

appliances, however simple, and until these virtues are taught most of the village problems will remain unsolved. Moreover, as will be seen in the next chapter the promiscuous use of the area round the village as a latrine is definitely bad farming.¹

The essence of the latrine problem is to combine good health with good farming. That is to say, latrines must satisfy five conditions. They must not (a) breed flies, (b) contaminate the water supply, (c) offend the nose, or (d) require service. (e) Their contents, liquid and solid, must not be lost to the farmer but, when properly decomposed and ready for the land, it must be possible to transport them to the fields.

It is unthinkable that the carrying of crude faeces should continue for a day longer than possible to be the hereditary duty of a particular class of human being,² or should be necessary for any human being, except in exceptional cases, such as sickness. Although, therefore, no finality has yet been reached in the matter of the design of rural latrines, it is probable that the final solution must be some sort of hole in the ground and the main question is what shape and size the hole should be.

The principal kinds of village latrines so far under experiment are three, the bored-hole, the quail pit, and the farmer's rubbish pit.³ This last kind of latrine⁴ will not be acceptable to the cultivators until they are convinced that everything turns to odourless black earth and therefore no social stigma attaches to the handling of it once it is fully rotted. These pits must never be used as latrines unless they are a good distance (fifty yards at least), from the houses. A pit used as a latrine must of course be

¹ See p. 66. ³ See pp. 37, 40, 283 (9), 288 (12, 13, 14), 290 (6).

² See p. 270. ⁴ See p. 38.

covered up with earth when full and never emptied until its contents have completely decomposed.

The bored-hole is disliked by some health experts for fear of its contaminating the water supply, and for the farmer it means the loss of the whole of the urine and most of the rest of its contents. They are probably safe when the subsoil water is twenty-five feet below ground level and there are no wells or pumps within a hundred feet. The quail pit attempts to meet these objections but here flies and stench are sometimes a trouble. None of these three kinds of latrines requires any servicing that cannot be done by the users themselves. The top and squatting place of the bored-hole and the quail pit must be raised to keep out rain water, and of course must be kept clean. If much water gets into the quail pit, it may need a bucket full of horse-dung to prevent it giving offence. Squatting-slabs¹ must be carefully designed. They should be made of reinforced concrete well sloped towards the centre with a raised bit each side of the hole to show where the feet should be placed. The hole should not be too wide, but at least fifteen inches from front to back for adults, and well cut back underneath to prevent it being fouled. A bar across the centre will give confidence to children.²

3. **Wells.** So much for the main part of cleanliness. A great deal, however, both of comfort and cleanliness depends upon two other things, wells and ponds. There is no reason why the villager should not get pure water, but he very rarely does, because for want of simple precautions

¹ See p. 288.

² In Hoshiarpur District, through the initiative of the District Medical Officer of Health—Rai Sahib Dr Harnath Singh—all manner of village necessities, such as wall and roof ventilators, drain pipes, latrine squats, etc., are made in cement concrete at extremely cheap prices. See p. 290.

he allows all his wells to be contaminated. For well water to be pure, six things are wanted :

(i) A roof to keep out leaves, bird-droppings and a lot of dust. This is less essential than the other things, but when spending many hundreds of rupees on a good well, why not make a job of it and add a roof? Even better than a roof is the complete sealing of the well and the extracting of the water by means of a pump or a Persian Wheel (worked by hand or by bullock power).

(ii) A properly built platform with a raised and outward-sloping inner lip, so that pots and buckets cannot be put on the edge of the cylinder and water will not splash back into the well from the platform.

(iii) A masonry or hardened walk round the well below the platform or cylinder top, both for the convenience of the women and to prevent dirty water collecting in puddles and soaking down into the subsoil water.

(iv) A masonry drain round the well to collect all waste water from the walk and from the platform and take it away—not to a pond or bog but to a garden or a series of trees, vines, papayas, bananas, etc., big enough to absorb the whole output.

(v) A pump or Persian Wheel or, failing one of these, a drum or windlass round which the bucket rope is wound, so that the rope shall never lie on the ground or even on the well platform and get dirty.

(vi) A common bucket. No one should be allowed to put his own vessel into a public well.

Other good arrangements are masonry or iron tanks fitted with taps¹ and filled from the well by Persian Wheels or other water lifts. There are many ways of making the

¹ A wooden cock is better than a tap as children are apt to spoil taps.

drawing of water easy and pleasant, but whatever is done the essentials must be observed by which the water in the well is kept absolutely pure. No dirt must be allowed to get in either (a) from the air, (b) from the bucket, rope, or pump by which water is lifted, or (c) through water getting back into the well either from the platform or by seeping down through the soil round the well.

4. **The Village Pond.** The ponds and depressions round the village are perhaps the biggest problem of all. People dig, dig, dig, to build and to mend their houses and walls. The older the village the worse it gets, until the place becomes an island! There is no place for the cattle to stand, for the children to play, for pits to be dug or for the village to expand. In villages where the *shamilat*¹ land has been divided up and these depressions come into private hands, some of them may get filled up, but this disappearance of common land produces other problems, and makes manure pits and the provision of community needs impossible. Consolidation of holdings is the only real remedy for this pond problem. The committee of the Co-operative Consolidation Society² reserves a sufficient area round the village for all needs; ponds³ and depressions among or near the houses are then filled up, and a sufficient number of ponds are dug at a proper distance from the village. Earth for filling them comes from the new ponds, from any high ground, old kilns, and other mounds within reach, or, if finally necessary, from the fields. A few furlongs of light railway track and a dozen tip-wagons

¹ Common land.

² See pp. 168, 174.

³ The site of an old pond adjoining a village is generally very valuable and much coveted and the man to whom it is allotted is willing to spend much money and effort in levelling it and making it fit for cultivation.

would make pond filling a much less arduous business, in villages where earth has to be brought from far away.

One way of getting rid of a depression is to put a small bank round it to keep out rain-water, and then, when it dries up, to level it and use it as a playing-field. This has been done very successfully at Clarkabad, a Christian village in Lahore District, and for a village school in Hoshiarpur District. A depression can also be divided up into pits, sufficient earth only being dug out of each pit to build walls and roads up to the old ground level. A depression need not of course remain a permanent pond if it is banked all round to keep out all water except the rain which actually falls on the depression itself.

When the ponds are dealt with by a Co-operative Consolidation Society, every other possible need of the village is dealt with. The stimulus given to corporate effort by the success of the Consolidation Society carries the people through every kind of difficulty. Everything else is a mole-hill to the mountain of scattered holdings, and if a co-operative society can overcome that, what cannot it do? And so they make a clean sweep of all their troubles and problems.

We too will take them one by one but we have not finished with the ponds yet. Houses will still need clay for repairs even after the new ponds have been dug and the old depressions filled. The first thing necessary is for the engineers to find some means of weather-proofing kachcha walls. If the length of life of the kachcha wall can be doubled, digging will be automatically halved. A cement wash has been recommended as satisfactory and whitewash followed by a sodium silicate spray is being tried out. Bitumen has been tried, but not yet successfully. There is obvious scope for research here, as clay-digging is one of the biggest problems of the village. The next thing is

to control the digging. The counsel of perfection would be for people to fetch clay either from their fields or from a common quarry far away from the village, but human nature being what it is and most of the work of fetching clay devolving on the overworked women, we must look for something easier. The following experiment is worth trying. Divide every pond site into two halves, separated by a bank with a masonry waterway in the middle. Let one half be used as a pond, while all digging is done in the other half. When enough digging has been done, open the waterway, transfer the water, and use the dug-up half as a water tank, and the other for digging, repeating the process whenever necessary.¹ This may or may not solve the problem but it is worth trying and is being tried on the Ingram-Skinner Estate near Palwal. In any case digging should never be promiscuous. The village committee must allot and mark off the area within which digging is to be done and allow it nowhere else.

Ponds must get their water from the jungle or from fields and not from the village site, as, however clean the village is, its water will always be dirty. Ponds must therefore be embanked against the village, and their inlets must be on the sides away from the village. Let the run-off of the village go into the fields or into a special drain, but not into the cattle ponds nor along the roads.

5. Miscellaneous. (i) **THE VILLAGE.** Before we return to the home, we will finish off the necessities and amenities of the village in general.

(a) All such things as kilns, tanning-yards, bone depots, graveyards, and burning ghats should be moved well away from the village, and hemp should be steeped as far away as possible.

¹ See p. 288 (16).

(b) A recreation ground is essential. The more vigorous and healthy the village boys and young men, the more certainly will they get into mischief if they do not play games—and let them be good rough games, *kabaddi*, football, *pirkaudi*, net-ball, rugger-touch, etc., not volley-ball and suchlike namby-pamby recreations.

(c) *Village roads.*¹ Landholders on both sides of the village roads encroach on them until one cart, let alone two, can hardly pass, and they dig earth out of the roads to mend their field banks. The roads become drains in the wet weather, steadily scouring down below the level of the fields and, in wet weather are useless for all wheeled traffic. Village roads must be straight, wide enough for two-way cart traffic and raised a foot above the level of the fields. Wherever canal or well water courses cross roads proper culverts are essential, to make traffic easy and to prevent flooding and waste of water. Field owners must never be allowed to dig earth from the roads to mend their banks. Roads must never be drains, and any drains necessary must be specially provided for the purpose.

(d) Roadside villages are a very special problem. A lot of earth has usually been dug away to raise the road, the village has no exit for drainage water towards the road, and there is usually a peculiarly foul no-man's-land between road and village, which gives Government and village alike a bad name. The only cure is for the road engineer, the health officer, the executive officer, and the villager to get together and work out a remedy for the peculiar circumstances of each village.

(e) *Village planning.* All the new canal colony villages

¹ The rubber-tyred cart is far the best for the bullock, for his owner and for the road, whether *kachcha* or *pakka*. But the pioneering must be done by Government and local bodies for the carting of their material whether for roads, buildings or sanitation.

are built to carefully prepared plans, but very rarely does one get a chance of planning a new village elsewhere. When one does, the first thing to avoid is trying to plant a sealed-type plan upon the people. The locality must be very carefully studied, prevailing wind (for kilns and other things that smell or smoke or raise dust), the trend of the subsoil water (for latrines and wells), the slope of the land (for drains and ponds), etc. Too many roads and too wide roads inside the village are a nuisance when it comes to lighting, draining, watering, paving or cleaning. Back-to-back compounds are desirable but not back-to-back houses. The road scheme cannot be cut and dried. Draw lines from the principal traffic points, bridges, level crossings, villages, main roads, and where they meet is the centre of the village. Make ample allowance for all community needs, ponds, recreation grounds (for lads as well as for women and small children), wells, religious buildings, shops, meeting-houses, pits, burial and cremation, potters and other artisans, etc. A circular road is admissible and the pits should be outside it. Roads outside the village should be wide enough both for two lines of traffic, for the borrow-pits (from which they are raised high enough to ensure that they shall never be drains or pools instead of roads) and for the boundary banks.

All this work can easily be done at consolidation time, but realignment of roads and provision of drains is difficult if not impossible at any other. Keeping village roads in order by regular work is essentially a job for the villagers to do themselves. If Government and District Board do it, it will cost vast sums. The villagers, if organized—and without organization nothing good can ever be done—can do it in their spare time at no cost whatever, and then Government and District Board will have more money for

things which the villagers cannot be expected to provide themselves.

(ii) THE HOME. Let us return to the home and finish it off. Having settled the essentials of light and air and cleanliness and some of the necessities of community life, let us consider several little ways of brightening the home.

The designing of necessities and amenities for the village home offers a wonderful opportunity for practical service, particularly to engineers, and it is to be hoped that more attention will in future be paid to the needs and comforts of more than three-quarters of the population of India.

(a) *Cooking arrangements.* The kitchen should if possible be a separate room or lean-to. Failing that the cooking should be done outside, and never in the sleeping room.

In all cases chimneys are absolutely essential, both for comfort and convenience, and to save the eyes. Why blacken walls, beams and ceilings when with a little effort and ingenuity all the smoke can be taken away in a chimney?

I cannot help thinking that it would be less dusty and more comfortable if the work connected with cooking were done on a raised earthen counter or bench instead of at ground level. The cook would still squat or sit on her *piri*,¹ but on three sides of her would be a raised earthen platform about a foot or eighteen inches high. These are details, however, that no one but villagers themselves can decide, and they will doubtless do so when once they begin using their brains to think out little ways of making their homes nicer.

(b) *Drudgery.* Every effort must be made to reduce the drudgery which now burdens the housewife, and wastes valuable time which might be better spent on looking after

¹ A stool about six inches high.



AN ATTRACTIVE HOME

Note the hay-
box and the
chimney, and
the decorated
walls

A SOLDIER'S HOME

Note the flowers
and the ventilators



and training her children, making and mending clothes, and brightening the home. For instance the *chakki*, the hand-mill, must give way to the *kharâs*, the bullock-driven mill, and the haybox¹ must reduce the amount of dung-cakes required as fuel. For the removal of rubbish, a wheelbarrow is far cleaner and quicker than a basket carried on the head, but a good design is still wanted, which can be copied by village craftsmen from materials easily obtainable in the village.

(c) *Nets*. Many village mothers are ready to buy little nets for their babies, not to keep off mosquitoes—that will come in time—but to keep off flies while they are sleeping during the day so that they may sleep in the fresh air and not in a dark stuffy interior. These nets can be had from the co-operative industrial societies.

(d) *Flowers*.² There is no reason why every village home should not have its little flower patch, however small. The world is full of lovely flowers and is a brighter place for them. Fancy hollyhocks, verbena, larkspur, and all the rest, one or all of them, in every village home! The village is a drab place and flowers would make a wonderful difference. Our urban friends can do a little social service by making up packets of seeds with simply written instructions for distribution in the villages.

(e) Now that light is coming into the insides of the homes, coloured pictures³ are much needed for the walls and many villagers are ready to pay a small price for them. They must be bright and they must be really artistic and tasteful. The same need arose in England in the last century, when light and air began to be brought into the cottages, and it was supplied in part at least by religious and philanthropic societies. The Bible pictures and illuminated texts so

¹ See pp. 54, 277 (18).

² See p. 140.

³ See p. 218.

common in English villages, show what good use was made of the opportunity. What a chance to provide good cheap pictures for the Punjab villager, each picture containing some hint of the bright homes and smiling villagers we want to see !

(f) *Fuel*. Fuel is in most places a very serious problem. The uncontrolled destruction of all vegetation that can be used as firewood is causing irreparable damage by erosion,¹ while an immense amount of cow-dung and vegetable waste is being burnt which is urgently required as manure and without which the fields are steadily losing fertility.

To burn cow-dung is to kill the goose that lays the golden egg, and fortunately it can now be very largely avoided. The main uses of cow-dung fuel are for simmering milk for ghee-making, and for keeping hot *dāl*² *gowâr*² and other human and cattle foods which take a long time to cook. All this work can now be done by the ancient and well-known method known as the 'haybox'.³ Hay, or better still bhoosa or chopped straw, is a non-conductor of heat and a boiling pot buried in bhoosa in the morning will have lost very little heat by the evening. The instructions for its use are as follows.

Any container will do, whether of iron, wood, clay or a hole in the ground. Pack this with bhoosa, bring the vessel to the boil, cover it up carefully—a cloth as well as a lid is advisable to keep bits of bhoosa from getting in—and bury it deep in the box, covering it with several inches of bhoosa. Be sure that no hot cinders are sticking to the bottom of the pot. The evening milk should be added unboiled to the morning milk in just the same way as is done when cow-dung is used. This village thermos will of course keep cold

¹ See chap. vii.

² Pulses.

³ See pp. 277 (18), 283 (8).

things cold as well as keep hot things hot. The vessel must be as nearly full as possible, when put into the haybox ; but as every housewife keeps a large range of pots this is easy. The only difficulty comes when the goodwife wants milk during the day. If she keeps opening up her haybox, the heat will be lost, so she must have two hayboxes, and in one keep enough for use during the day, and let the other be undisturbed till evening. Those who do not want to handle bhoosa every time they use a haybox, can avoid it by lining the bhoosa with gunny cloth. A cushion stuffed loosely with bhoosa will do to cover the pot, but this must be made of cloth as bhoosa will leak through gunny cloth when it is handled.

The Imperial Institute of Dairying at Bangalore has tested the haybox and proved conclusively that more and cleaner ghee is produced by this method and that in odour taste and texture it is superior to the cow-dung method. The universal use of the haybox will increase the manure supply by tons, will save the hard-worked housewife from a dirty bit of drudgery, will eliminate a lot of smoke and the cause, particularly in the hot weather, of many village fires. It is in fact a social and agricultural reform of the very greatest importance. As for fuel for other cooking, the method of cooking at present usual in villages is extremely wasteful. Every pot has its own separate fire. *Chulas* (grates) must be designed which will enable all or as much as possible of the cooking to be done on one fire. The Agricultural Institute at Allahabad has designed a cooker with an oven on one side, a water boiler on the other, and spaces for several pots on top. It is made of clay with iron dampers to send the heat and smoke where desired and could be copied in any village.

But fuel is still wanted and where is it to be got ? In

China, every bit of vegetable waste is collected and preserved either for fuel or manure, and this must be done here too. The villager wastes, by burning in a bonfire or by just leaving it where it is, large quantities of refuse both in the fields and in and round the village. All this must be carefully collected and either put in the pit or husbanded for fuel. Grass, tree loppings, weeds, leaves, cotton-stalks, crop-refuse after cutting or threshing, hard bits of fodder, old straw and thatch—nothing must be wasted. The hard-working Chinese sow alternate plants of millet and soya beans, top dress them by hand, and, after the leaves have been stripped off the millet at the right time and dried for fodder, the huge coarse stalks make excellent fuel. Even the stubble is pulled out of the ground and used for fuel or compost in China.¹ If the Punjab villager only puts his mind to it, he could find or grow a very great deal of fuel and so save his cow-dung for its proper use as manure. Without a panchayat in the village, however, the roadsides, hillsides, waste places and common lands will never be put to their proper use to grow timber and fuel.²

¹ See *Pit Pamphlet*, p. 277 (1).

² See chap. vii and pp. 153, 157, 176-7.

CHAPTER VI

THE FARM

THE best way of raising crops differs from district to district, almost from field to field, but there are certain things as necessary for farming everywhere as bats and balls are for a game of cricket, and anyone trying to grow crops without them has no right to be called a farmer.

Some of these things are :

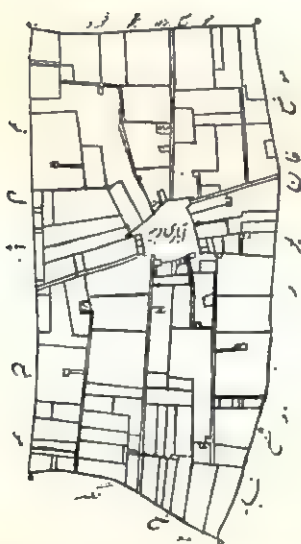
1. Capital.
2. Land.
3. Water.
4. Manure.
5. Good seed.
6. Strong cattle.
7. Proper implements.
8. Common sense and hard work.
9. Attention to crop disease and pests.

1. **Capital.** This is so important that it gets a separate chapter (see p. 233).

2. **Land.** The first requirement of land is that it be in a compact block. It is impossible to farm properly small fields scattered all over the area of the village, and yet this is what most Punjabi villagers outside the Canal Colonies are trying to do.

Consolidation of holdings is therefore the first necessity of good farming. The Co-operative Department¹ (and in certain districts the Revenue Department) deals with this business in the Punjab and when a village is ready sends

¹ See pp. 168, 174.



CONSOLIDATION OF HOLDINGS

Before and after consolidation. Note the new straight roads

a trained man to work it out, and to do everything possible to obtain unanimous acceptance of the new distribution of land.

Till now there has been no law by which even one obstinate landowner can be prevented from spoiling the whole plan, but legislation has just been passed which will enable a certain majority to compel the rest to join in this obvious reform. So keen has the demand now become for consolidation that people are gladly paying up to eight or nine annas an acre to get the work done. This is not the whole cost but it is a promising beginning.

The second requisite of land is that it be protected from erosion. The topsoil and the rain water use the two greatest capital assets of an agricultural country, but by allowing the vegetation of the uncultivated land to be destroyed and by neglecting to level, terrace and embank the cultivated land, many people are letting one of these two national assets destroy the other instead of using both to produce wealth. People who neglect their land are not merely destroying their own and their children's heritage, they are destroying the biggest national asset of an agricultural country. The State, therefore, has every right to interfere and insist upon the proper conservation of the land surface of the country. Unlevel fields must be levelled and terraced and every bit of *barani* land must be protected by banks so that where the rain falls, there it shall stay until it has done its work. Standing water when no longer wanted is drained off, if possible, by drains at the back and not the front of the terraced field, so as to involve less risk of erosion by letting the water run down the steep edge of the terrace.

3. Water. This can be subdivided under the four following heads :

(i) *Rain water.* Almost everywhere the rainfall is complained of as insufficient, and yet very little attempt is made to make the best use of it. Where land is unlevel, it must be levelled and terraced and all rain-fed land must be surrounded by small banks (*watbandi* or *daulbandi*)¹ so that all the rain which falls will be held up until either it has soaked into the soil or the cultivator releases it himself by opening his banks. If rain water is allowed to run away uncontrolled it does untold mischief. First, it takes away part of the topsoil. The topsoil contains most of the plant food and, in addition, everything which has fallen on the surface of the land since it was last ploughed—the dung of the cattle, animals and birds and all the other animal and vegetable refuse that collects on the surface of the land. Besides this, it soaks out the valuable chemicals in the soil and takes them away with it. Then it seals the pores of the soil, thereby preventing the water from soaking in. Finally it cuts away the fields, and one has only to ride through the Salt Range or any other hilly area to see the terrible damage done by the uncontrolled run-off of rain water cutting back deeper and deeper every year into the fields, all for the want of a little care and labour. Wherever one sees good crops in the hilly areas one finds terraced and embanked fields. Wherever the crops are poor, one may be sure the fields have not been levelled, or the embankments are broken or defective.

In general, a baked stubble will not absorb water like a ploughed field ; weeds help to use up the water in the soil ; manure helps the soil to hold more water ; crops sown in lines and on ridges use less water than broadcast crops, and get more benefit from it.

(ii) *Well water.* Wherever there is sweet water within

¹. See pp. 74, 95, 277 (19), 283 (4).

reasonable reach of the surface, wells should be sunk. The sinking of wells in canal areas is extremely important both as an insurance against canal closures, as a corrective to the steady rising of the water-table in canal irrigated lands, and as a means of growing more varied and more valuable crops, both for the market and to secure a better and more varied diet.

For short-lifts the old fashioned *charsa*, or leather bucket, which requires four bullocks and four men, is a very expensive way of taking water from a well. The most practical method for a smallholder is the Persian Wheel, with galvanized iron buckets and iron machinery. There is more friction in wooden machinery, and earthen pots are continually breaking.

Wells which do not give sufficient water for continuous working may often be improved by boring. In the Punjab this work is undertaken by the Department of Agriculture. At the moment, in order to encourage the cultivators to bore their wells, no charges are being made for overhead expenses. The well owner has to pay for the pipes and strainers and the wages of the Government borer and of course provides all the unskilled labour. Exclusive of this last the cost works out at about Rs. 220 for an average well.

Persian Wheels are efficient to a depth of about fifty feet, after which a bullock or engine-driven Boulton elevator is more efficient. Even the *charsa* is useful for these greater depths. If the well has a very big supply of water, an engine may be cheaper and more efficient than bullock-power, but unless water is almost inexhaustible an engine will not pay, and the too rapid lowering of the water-level in the well will soon spoil the well itself. Before boring a well or fitting any other lift—whether bullock-driven or

mechanical—except the well-tried Persian Wheel, well-users should get expert advice. Otherwise, they may lose their money or spoil their well. This advice is given free of all charge by the Agricultural Department.

A little capital can be very well spent in lining well channels with masonry or concrete to prevent loss of water and to save labour in repairs, particularly in sandy soil.

(iii) *Canal water.* Just as with rain water so with canal water, cultivators complain that it is insufficient, and yet for want of a little thought, work and self-discipline they do not make the most of it.

The following are some ways of making the best of canal water :

(a) THRIFT

1. Watercourses should be kept straight and clean and should go the shortest way that the lie of the land will allow.
2. Consolidation of holdings is essential for economical use of canal water.
3. Wherever a watercourse crosses a track or road, it should be properly bridged.
4. Make your field banks strong to prevent breaches and waste of water.
5. The *kiâras* or compartments into which the field is divided should be as small as possible. No one would dream of making as few as two or four compartments to the acre for well water, and yet canal water is just as precious as well water.
6. Crops should be sown in lines and ridged up when they are growing so that the water may run between the lines and ridges—this uses less water and is better for the crops.

7. Well-ploughed land holds moisture better than badly-ploughed; so does well-weeded land and so does manured land.
8. Break the hard crust of the land with hoes, harrow or plough as soon as it forms after watering or rainfall.
9. Stubble should be ploughed up as quickly as possible after the crop is cut, so that it may benefit by any rain that may come. If possible, save water by dry-ploughing.
10. Level your fields so that you can water them with the least possible water.
11. Don't use more water than you need. It does not help you and it deprives someone else of water he needs, and helps to raise the subsoil water level.
12. If you use canal water as thriftily as you do well water, there will be more than enough for everyone.

(b) GOOD CITIZENSHIP

Given fair play all round, canal water will go much farther than when every one thinks only of himself. All extra water obtained dishonestly means that someone else will get less than he is entitled to.

Have nothing to do with the cutting of canal banks, the blocking of channels, the breaking of *wâris*,¹ and the playing of any other trick in order to get extra water at someone else's expense. All these things are nothing but theft; they are anti-social acts, they lead to reprisals and resistance, and all of them in the end mean waste of water.

Stealing canal water is not robbing Government; it is robbing your neighbour. So don't give evidence in favour of your relations or friends when you know they have cut a canal or done any other crime against their neighbours.

¹ The schedule showing the time and length of each cultivator's turn for water.

The proper use of canal water is a complicated business and requires a well-developed civic sense and the most honest, loyal and intelligent co-operation both between the irrigators themselves and between the irrigators and the canal authorities.

(c) GENERAL

(1) *The proper way to plan field channels.* The water channel should, if possible, be laid in the middle of the acre line, thus dividing the rectangle into ten instead of five lines, reducing the length of channel needed and making irrigation more efficient. The rotation should of course be arranged to bring each season's crops together into a compact block.

(2) Farmers should be ready at all times to change the proportions of their crops or their rotation so as to make the best use of water when it is abundant and to avoid loss when it is scarce.

(3) Farmers should make experiments with various numbers of waterings and depths of water to see how to get the best return with the least water.

(4) The ideal method of irrigation would be to buy and sell water in quantity, but the Punjabi is not yet a good enough farmer either to see the advantage of this both to himself and to Government, or to organize himself and his fellow farmers to carry it out.

(iv) *Flood water.* Bunds can be built in most of the hilly areas to hold up water for the irrigation both of the bed of the pond above the bund and for the watering, by mere flooding or by canal channels, of the land below. This work is usually left to Government, but there is no real reason why villagers, and even whole villages, should not join together and make their own co-operative bunds. Naturally the cost will be far less and the stimulus of

successful enterprise will lead to lots of other good work. The building of bunds controls the run-off of the catchment area, protects the land below and increases cultivation, increases the subsoil water and raises its level, besides sometimes causing the formation of springs.

Finally water can be lifted from tanks, rivers, and streams, and also from canal channels, for land which lies too high for direct watering from the canal channel itself. A Persian Wheel or an engine is used or, if the level of the water is fixed and within a few feet of the field level, a *jhalâr* can be used ; that is, a wheel with buckets attached to the rim. By far the most efficient form of *jhalâr* for short lifts is that introduced from Egypt by Colonel Noel and now working at the Tarnab Farm near Peshawar. Lift irrigation from canal channels is not common in the Punjab and presents great difficulties when combined with flow irrigation.

4. Manure. The dirt of the village is the raw material of good crops, but a very great deal of it is at present wasted. Everything that is not thrown into a pit is liable to be wasted. It will be blown away by the wind, washed away by the rain, or scattered by the feet of human beings and animals. Every kind of animal and vegetable waste, therefore, has got to be collected in pits.¹ Nor must anything be burnt except for necessity. A lot of rubbish is now burnt either to make the village tidy for inspecting officers to see, or out in the fields because the villager is too careless or lazy to collect it in a pit. The necessity for making dung-cakes for fuel has now been largely eliminated by the introduction of the haybox [see pp. 54 and 277 (18)].

A very common habit is to throw raw unrotted manure on the fields. This is bad farming, particularly where water

¹ See p. 38, etc.

is not abundant. Raw manure attracts white ants, and instead of feeding the crops some of it will feed the ants. Further, before it can feed the crops the manure must be rotted—raw manure is like raw food, it is indigestible—and while rotting it wants water and air. So do the young crops, but the manure will use the water and air in the soil and so the crops will dry up. That is why farmers say that manure ‘burns up’ *barani* crops. They are right to the extent that unrotted manure is bad for the crop sown just after it has been put on the field, and will only benefit the succeeding crops. Put in rotted manure and it will help the first as well as the following crops. The rotting can best be done in pits, and therefore every farmer must dig and use pits. The best manure of all is compost, but this means work, and so far the Punjab farmer, in spite of the many idle days he has during the year, has declined to add to his income by turning his refuse into compost. Compost is made in shallow pits, about two feet six inches deep. Only half the length or breadth of the pit is filled, water is added, and at the end of every fifteen days the manure is turned over, water being added whenever necessary to keep the fermentation going. In two months or so the manure is ready for the fields and it is a highly valuable plant food. Full particulars of this process can be had from the Institute of Plant Industry, Indore,¹ or from the Punjab Agricultural Department. For those who are not yet sufficiently energetic or awake to their own interests to make compost, the next best thing is the six feet deep collecting pit.²

A common and widely held fallacy is that the use of the country round the village as a latrine is good farming. In

¹ See also p. 277 (1).

² See p. 38.

the first place only a fraction of the people use the actual fields at all. Even for those that do, the only profit the field gets is the urine, unless the field is ploughed up very soon after use as a latrine. The rest is rapidly disposed of by the many kinds of organisms that prey on it. No, lazy or dirty habits do not make good farming ! The fields near the village are certainly more fertile than the rest. They get a lot of urine and they also get a lot of highly charged rain water running out of the village, animals stand about there and most of what manure is thrown or carted out of the village only reaches the fields nearest the village.

In other countries, fields are manured for every crop. In this country even irrigated land is rarely manured every year, and *barani* land usually gets no manure at all. Every possible scrap of manure must therefore be scrupulously collected and preserved as a part of the ordinary routine of home and farm. Even then there will probably not be enough for all crops. For this additional supply there is either green manure or chemical manures. Chemical manure is at present very rare in the Punjab. It is no use for 'ranchers', or extensive cultivators, but a few first-class, intensive farmers are profitably using sulphate of ammonia and potassium nitrate for sugarcane, potatoes and chillies. Green manure costs only seed and labour and can be used in irrigated areas to supplement the natural supply. The best crop for green manure is *gawâra*, but hemp and others are better suited to some soils.

Green manuring is not often possible in the *barani* areas of the Punjab owing to the scanty rainfall, but *sarkanda*¹ grass and other such wild vegetation have been most successfully used to improve sandy land.

¹ Pampas grass (*saccharum munja*).

One of the best kinds of manure is the urine of the cattle, but this is usually lost by all except those who tether their cattle in their fields, a custom which should be encouraged. Those who for fear of thieves or for other good reason, keep their cattle at home, should sprinkle earth on the floors of their stables and yards. This will make the cattle more comfortable and when it gets soaked with urine it must be scraped up, taken to the fields for manure and replaced by fresh earth.¹

Barani soil must not, of course, be over-manured. It must only have as much manure—properly rotted—as will produce such crops as the rainfall is sufficient to bring to maturity. Therefore the less the rainfall, the less the manure required.

For manure pits see pp. 38-40, and p. 277 (1).

5. **Good seed.**² The Agricultural Department has evolved better varieties of seeds for many crops, particularly wheat, rice, cotton and sugar-cane. The best general utility wheat is 8-A ; 9-D is very popular in submontane areas ; C-518 is for strong soils and first-class conditions : it gives a magnificent yield, has a very strong stalk and is therefore less apt to lodge. The latest and most promising variety is C-591 which, incidentally, makes the best *chapattis*. Every year fresh progress is being made, and, whether for wheat or for any other crop, the cultivator should be continually consulting the Agricultural Department for new

¹ Trenching is another way of using manure. A trench one yard wide and twelve inches deep is dug and filled with rubbish and sweepings. This is repeated all round the field, the earth from the new trench being thrown on to the rubbish just laid down until there is a continuous layer of manure buried a foot deep throughout the field. This layer settles to a thickness of about an inch and forms a ribbon of manure, too deep to be disturbed by the plough, retaining moisture, renewing itself with the roots of the crops and giving magnificent crops for very many years.

² See pp. 277 (12), 283 (5, i), 289 (17).

and better varieties. Government, however, cannot provide seed every year for every farmer, and it is the duty of everybody, great and small, to grow seed for himself and his neighbours. It is also his duty to keep the seed as pure as possible, and fields intended for seed, whether for himself or for his neighbours, should be very carefully 'rogued', and every other variety of the crop except the one required for seed should be removed before the crop is cut. Wheat and rice are heavy seeds to transport, and therefore if the villagers, once they have been supplied by Government, do not make their own arrangements for keeping their seed pure from year to year it will always cost them more. Good farmers, however, must always beware of their seed deteriorating, and be ready if it shows signs of doing so, to buy fresh seed to replace it. Government is establishing more and more seed-selling agencies but big landlords, Court of Wards Estates and co-operative societies should always be seed depots for themselves and their neighbours. All good shopkeepers who sell seed at all should sell nothing but the very best. It is in their own interest to do so as good crops raise purchasing power, and stimulate trade and business.

Cotton seed is a particularly difficult matter as ginning factories often sell mixed seed and Government can never provide enough for everybody. Cultivators should gin enough of their best cotton to provide themselves with pure seed for the next year.

Good seed naturally costs more than bad seed and Government is bound to sell first-class seed slightly above the market rate for ordinary seed, particularly in the case of food grains; otherwise, as the Government seed is pure and clean, it would often be eaten instead of being sown! Even so, however, good seed probably works out actually



COTTON SOWN IN LINES

It has yet to be thinned

[See p. 75]



IMPROVED SUGAR-CANE

This particular field yielded 142 maunds of *gur* per acre

cheaper than dirty adulterated grain sold at a slightly lower price. Cultivators must therefore be ready to pay a slightly higher rate for the best seed. It is a rule all over the world that good things cost money, and the villagers have got to learn the meaning of the phrase 'cheap and nasty'. Whether one is buying seed, bulls, ploughs or anything else, it is generally wiser to pay a bit more and get a better article.

Another thing which makes Government seed more expensive is that it has to be bought at harvest time and stored till the next sowing season. The villager, of course, pays nothing for storage, but Government does. Those who want Government seed should order early, as Government must buy at harvest time and cannot afford to store large quantities of seed it is not likely to sell.

Farmers should always insist upon sowing nothing but the best seed, whether they put aside their own seed at harvest time or buy it from their neighbours or from Government. The other costs of cultivation are the same whether the seed is good or bad, while the difference between the cost of good and bad seed is so small, and, assuming proper methods of cultivation, the difference in yield is so great that any slackness here is sheer stupidity. Nothing is more disappointing than to see what looks to be a fine crop growing up and then to get a poor yield from it because the seed was bad; or to take several years to grow a fruit tree only to find that the fruit is of a poor quality, because an indifferent seedling was planted.

6. Strong cattle. See Chapter VIII.

7. Proper implements.¹ There are many simple and cheap implements recommended by the Agricultural Department

¹ See p. 283 (5, ii).

which not only save labour but do very much better work than the local ones. Furrow-turning ploughs are essential for cleaning the land, and unless the land is clean crops will not thrive, though pests will. Well-ploughed land retains more moisture than badly ploughed land, and is therefore less dependent on regular rain or irrigation. There are many kinds of good furrow-turning ploughs, and some are made in the towns and villages of several districts. The cheaper kinds are Meston, Hindustan, and Hissar ; the more expensive are the Raja, Punjab and Chattanooga. These latter do much the better work but cost more and require better bullocks and more skilful ploughmen. The first ploughing after harvest should invariably be done with a furrow-turning plough.

Cheap drills evolved by the Agricultural Department are now available for sowing various kinds of seeds. Then there are harrows, cultivators, scythes, cane crushers, *gur* furnaces, sugar mills, chaff-cutters and winnowers. Tractors and power machinery are not recommended for the small fields and holdings of the Punjab, but the small oil-engine is good value for pumping, chaff-cutting, oil-pressing, grinding flour and milling rice. Weeding can be done much more quickly standing up with a long-handled hoe than squatting down and using a *kurpa* or *ramba*.

8. Common sense and hard work. The Punjab is a country of small holdings, and so the methods of a rancher are out of place and, whatever crops he is growing, the nearer the farmer approaches to the methods of the market gardener, the more likely is he to see his way home every harvest.

The Punjab farmer works very hard when he is ploughing, sowing and reaping, but he loses much of the value of this hard work by failing to work steadily day in and day out

through the whole year;¹ and by work I mean brain work as well as hand work. The farmer must always be thinking how he can improve his home, his village and his farm. The seed question is worth a lot of thought and it is worth going a long way to look at other people's crops or at Government farms to see whether there is anything to pick up in the way of better seeds, better methods or better implements. Fallows and crop rotations are most important for maintaining the fertility of the soil, particularly where manure is scarce.

Then there are markets to be thought about. It may not be wise to go on sowing wheat and cotton year after year. There may be other things which are more worth sowing, particularly in the neighbourhood of towns. Townspeople want all manner of things and are continually being tempted by new fashions. The townsman wants his stuff early and the man who produces melons or vegetables, or whatever it is, a few days ahead of his neighbour, gets the cream of the market. Why should not the farmers combine to market their produce instead of all dumping it on the market at the same moment and in competition with each other, and so allowing the middleman to quote his own price? Smallholders in other countries market co-operatively; why not in the Punjab too? I need not labour the point. Farmers must be mentally alert and active every day of the year and should always be on the look out for new crops, new markets, new business methods and new ways of profitable farming. The farmer must be always ready to learn, particularly from the Agricultural

¹ See pp. 86, 246-8. Steady hard work is the essence of successful farming. It should be the farmer's ambition never to be idle. A. G. Street says of English farming, in *To Be a Farmer's Boy*, 'There is never one single day or minute in the year when there is nothing to do on a farm.'

Department which is paid from his taxes to help him. Once the farmer sinks into a groove and farms from mere habit, as his ancestors did before him, he will drop behind in a competitive world, his mind will atrophy and his farm will deteriorate.

The cultivator must always keep in touch with

(i) Prices and markets.

(ii) The Agricultural Department and its farms.

(iii) The printed word, whether it is newspaper, pamphlet, poster, journal or book, dealing with his subject.

(iv) What other people are doing, particularly those whom he knows to be good progressive farmers.

So much for mental, now for physical labour. Plenty of good ploughing is the secret of good farming. Hard-baked stubble is doing no good, but turned over in rough clods it will get all the benefit of those highly fertilizing agencies, the sun, the rain and the wind. Ploughing not only conserves moisture but helps the aeration of the soil, kills the weeds and turns up weed seeds and insects for the birds to eat. The best ploughing is dry ploughing, but the land in the Punjab is usually too hard for this. The Hissar plough has been specially designed for dry ploughing and enables the farmer to get his land ready for the monsoon and so get his seed in as soon as the rain comes. By ploughing dry the farmer of irrigated land can save a watering and save waiting for his turn for water.

The levelling, terracing and embanking¹ of the land has already been mentioned as well as the collection of every bit of animal and vegetable refuse. Intercultivation, hoeing, weeding,² and harrowing are extremely important

¹ See pp. 60, 95, etc.

² *Pohli*, one of the worst weeds possible, is actually gaining ground in many parts of the Punjab, and yet the farmers complain that their holdings are too small!

both to preserve the moisture in the soil, to assist aeration, to keep the land clean, and to give the crops a chance of growing properly.

Village roads must be kept in order and raised above the level of the fields otherwise it will cost more to get the crops to market ; after rain it may not be possible to get them there at all, or the cattle may be damaged on the way. Clod-breaking is very generally neglected ; in fact, there is a lazy man's proverb in the Punjab, ' the bigger the clods the bigger the gram crop '. Cane sets must be soaked before planting. Cotton must be sown in lines and must be thinned as it grows, to let sunlight and air reach the lower branches. These operations require a little thought and labour, but are worth at least two maunds to the acre in increased production. The making of compost is yet another profitable job.

9. Attention to crop diseases and pests. Crops are liable to be attacked by pests and diseases, just like man and cattle. The causes are in general the same—too little food or the wrong kind of food.¹ Badly ploughed land will harbour insects but will not hold water. Neglected banks and terraces, unrotted manure or shortage of manure, failure to weed or hoe, too much or too little water—all these things mean unhealthy crops, and unhealthy crops, like unhealthy children, cannot resist cold, drought or insects.

Crops require constant attention. Whenever a crop looks unhealthy, the cultivator should take steps to find out why, and if he can find the remedy, he must apply it, however much work is required. Many of the crop pests (e.g. white-fly) are got rid of by spraying. Water strengthened with tobacco juice or soap, and even plain water, will often do a lot of good.

¹ See p. 110.

Here are some common crop troubles :

(i) *Wheat smut*. When the black heads begin to appear, they must be carefully collected and buried or burnt, so that the disease may not spread. This disease is carried by the seed and therefore, if the seed is clean, or a smut-resisting variety is sown, there is no reason for smut ever to be seen in the fields. Wheat seed can be freed from smut as follows : In May or June take all the wheat intended for use as seed next year and soak it in water for about four hours, and then spread it out to dry in the sun for several hours in the middle of the day. When it is quite dry, put it away in a thoroughly clean place.

(ii) *Gram blight* is spread by keeping the land foul. Proper ploughing and the destruction of every vestige of the previous crop are necessary. Then start afresh with blight-free seed¹ from the Agricultural Department.

All places for storing grain and seed should, of course, be kept scrupulously clean, and be thoroughly swept out every time they are emptied and before they are used again. Keen farmers will fumigate their grain and seed stores every year, and will see that the inside walls are smooth and without holes and crevices. Fumigation is done as follows :

Seal up every ventilator and crevice of the room with wet clay, put braziers inside with sulphur added to the charcoal, and then when the room has reached a very high temperature seal up the door and leave it for forty-eight hours. This is the best way to kill all the insects and germs, and, followed by a thorough sweeping, will help to stop the store chamber from being a source of crop disease.

(iii) *The kutra moth*. In *barani* areas brownish caterpillars every now and then eat up the whole of the monsoon

¹ After years of effort, a blight-resisting grain seed has been obtained.

crop as it comes out of the ground. The cultivators refuse to connect the yellow caterpillars with white moths which were seen flying about like drifting snowflakes after the first showers of the monsoon had softened the topsoil sufficiently for them to hatch. But these moths were the parents of the caterpillars. If people doubt it, get the village schoolmaster to keep some of the moths and hatch out their eggs. The time to stop this pest is when the moths hatch. As soon as the rains have softened the ground several inches deep, the moths will hatch out of the ground, and light-traps must be placed in the fields to catch them. Fill a broad basin with water, add a teaspoonful of oil to make certain that when a moth falls into the water it will not get out again, put a brick in the basin, stand a hurricane lantern on the brick, and the trap is ready. These traps must be distributed throughout the fields at intervals of about a hundred yards, and placed on little mounds of earth two feet high. Light the lanterns every evening until the moths have all disappeared. Every morning the water will be found choked with dead yellow-tail moths. Unfortunately a lot of other insects will also be caught, but this cannot be helped. The farmer is entitled to protect his crops even if it does mean the destruction of a certain number of innocent insects. This, of course, is an excellent job for schoolboys and Boy Scouts.

(iv) *Top-borer and pyrilla moths.* Sugar-cane is attacked by two moths, the top-borer and pyrilla. Pyrilla must be tackled in April and May, the moths caught in hand nets, and the egg clusters on the cane-leaves crushed between thumb and forefinger.

The top-borer must be attacked from February to November. Its eggs are laid on the leaves and must be crushed. The moths can be caught sitting on the leaves

by day and like the *kutra* moth must be caught at night in a light trap. The Agricultural Department have found a natural enemy of the top-borer in a minute insect parasite, and this they will help the farmer to use. The top-borer can also be attacked in the winter. It hibernates in the cane-tops and so if farmers will finish their cane-crushing and feed the tops to their cattle before the end of February they will greatly reduce this pest. Cane left for seed should be buried and not left standing for insects to use.

Both these and all other pests the villagers must organize themselves to destroy, and schoolboys and Boy Scouts should be their most active helpers.

(v) *Locusts*.¹ Locusts fortunately come only at intervals, but when they do come the whole countryside must turn out to fight them. A full grown locust is generally sluggish in the early morning and when he is mating, and can then be crushed by boots and destroyed in many other ways. The female lays her eggs in sand and the eggs can be dug out by children and burnt. When the eggs hatch into hoppers, they must be guided into trenches and destroyed. The smaller the hoppers the easier the task of destroying them, so that they must be tackled continuously from the day they hatch until the last hopper is dead. All this means organized effort. In fact, all the weeds and pests require organized effort, and at present they flourish in peace owing to the slackness of the villagers and their inability to organize themselves, and work together.

¹ Full instructions are given in Appendix V of the *Punjab Land Administration Manual*.

CHAPTER VII

THE PROBLEM OF EROSION

1. **The menace.** The increasing deforestation, desiccation, erosion, devastation—or whatever you like to call it—of the hills is a very serious menace to the prosperity and even to the existence of both hillman and plainsman. Nature designed the hills to be a reservoir of grass, timber and water. In their natural state the hills are protected by a cushion or mat of grass, shrubs and trees which, with their foliage and roots and the dead leaves and other rubbish they collect, form a thick vegetative cover. This cover both holds up and protects—besides improving and increasing—the soil and absorbs the falling rain like a sponge. This mitigates the severity of the monsoon floods and maintains the water level in the wells in the plains below, and a steady flow of water is provided through the rainless months of the year, thus enabling the canals to provide ample water at all times of the year.

The timber wealth of the hills can be and is being scientifically exploited by the Forest Department, but what the hillman and grazier are doing is not exploitation, it is sheer merciless destruction—the maximum of devastation with the minimum of economic return. The hills are overrun with sheep and goats and with unnumerable cattle whose principal value is their skin and bones. India is said to occupy less than one thirtieth of the world's usable area and to contain one third of the world's cattle and the smallest

milk consumption.¹ The main reason for this overcrowding of the grazing is that grazing is either free or absurdly cheap. If grazing were charged at economic rates useless cattle would soon become scarce.

In the circumstances of Northern India the over-grazing of the hillsides, so far from improving the turf, spoils it. The valuable grasses and weeds thin out and disappear and the valueless grasses spread and take their place. The hoofs of the animals break down the surface of the ground already laid bare by the work of their teeth and the axes of the graziers and woodmen. The naked soil is thus exposed to the full violence of the rain, the vegetative mat disappears, the rain is now free to attack the bare hillside, and the fertile topsoil, slowly accumulated in thousands of years, is washed away in a few monsoons, leaving nothing but the infertile, non-absorbent subsoil. One journey through the hills is enough to show the whole process of destruction. The hills are bare, with huge scars where the naked slopes are scaling off, every ravine is choked with the debris, and when it rains the streams are loaded with soil and sand. The damage is progressively increasing. The more the grass deteriorates and the more the axe destroys, the farther afield must the flocks and herds range, the more they deteriorate and the larger the numbers of them requisite to keep their owners alive, the closer must they crop to get their food and the keener must the woodman work for timber and firewood.

Near each hill village the hillman destroys the trees and the grass cover and, without waiting to terrace the new land, sows his potato or other crop on the steep exposed slope, often with the furrows running downhill to help the processes of destruction. The heavy rain washes the topsoil

¹ Except for China and Japan where milk is not usually drunk.

away and with it takes the valuable chemicals from what is left behind, so that in a very few years his field is barren and he has to uncover yet more land to plough.

One point, not often realized, which makes the position far worse, is that the heaviest grazing and lopping and the most extensive cultivation is in the lower hills—up to and round the level of our hill stations, and it is on these lower hills that the monsoon falls with its heaviest force.

Meanwhile in the plains several things are happening. (i) The graphs of the monsoon floods rushing down from the denuded hillsides show that the peaks are steadily rising while the troughs of the water scarcity in the dry months are steadily deepening. (ii) Good land is being washed away or buried under barren sand ; crops and revenue are being lost. (iii) Soil-laden water running over the surface of the land seals the pores of the soil so that the rain water cannot soak in properly, thus helping to lower the subsoil water table, and reduce the water level in the wells. The level of the water in the wells in parts of Ambala and Hoshiarpur has already dropped below that at which well-irrigation is profitable and part of the population has begun to migrate elsewhere. (iv) Silt is an ever present and expensive problem in the canals. It is estimated that silt has reduced the carrying capacity of one canal by forty per cent. (v) The cold-weather water supply of the canals and of the *hydro-electric power house is being reduced. (vi) The river beds are being choked with silt so that floods are more frequent and more destructive.

This is the present state of affairs, and if it is allowed to continue it must bring certain destruction upon hills and plains alike.

2. The remedy. The remedy is easy although its application is extremely difficult. Generally speaking, if

the hills are left to themselves they will rapidly recover. In parts of the Salt Range, where the common land has been divided and every man has put a dry-stone wall round his share, the erosion has stopped altogether in five or six years and the ground is already covered with a mat of grass and shrubs. Wherever complete closure has been applied in the Siwaliks of Hoshiarpur the hills have recovered their forest in a generation.

The land in the plains below, which has been cut away or covered with sand, cannot be reclaimed so easily; but even there it is only a matter of time and organized effort¹ for the soil to be brought back to crops. Once the run-off from the hills has been brought under control, work can start in the plains. *Sarkanda* grass, *nārā*² and *bana*³ are planted, then comes a crop of trees—*shisham*, mango or whatever else will grow—and in this way from both banks flood-resisting vegetation is built out into the sandy waste until the stream is confined to a narrow central channel where it soon scours a deeper bed for itself and ceases to wander over the face of the countryside. Meanwhile, as the soil recovers, some of the land can be put under crops behind the protective belt of grass and trees, and in time the fertility of the land is steadily restored. There is also profit to be had from fruit and, provided it is very carefully controlled, from the felling of timber trees.

Counter-erosion work is not uneconomic, and in general the reclothing⁴ of the hillsides with vegetation contributes immensely to the welfare of the hillmen. In fact continued

¹ An excellent opportunity for co-operative enterprise.

² *Apluda varia*

³ *Vitex negundo*

⁴ In the United Provinces a wonderful system combining reforestation with cultivation has been developed for level forest land. See Bulletin No. 10, United Provinces Department *Taungyas* of Saharanpur Forest Division 1937.



A NEGLECTED GRAZING GROUND
Ravines cutting back for want of *watbandi* and
gully-plugging



THE LAST STAGE OF EROSION
Topsoil gone and cattle starving

erosion can only mean increasing malnutrition and disease and final destruction for man and beast. Far more profit and far more occupation can be got out of the hillsides by developing trees for fruit, timber and fodder and other industrial purposes and by leaving the grass to grow, than by sending a horde of lean and bony beasts to jostle for a living by grazing.¹ Left to themselves, the best fodder grasses will flourish and spread and they can then be cut and fed to a row of sleek buffaloes stalled at the foot of the hill. There are villages in the Hoshiarpur District which not only feed all their cattle from the grass cut on their carefully preserved hillsides but pay all their land revenue from the surplus which they sell. Wealth is no longer counted by herds of cattle ; six good milkers in a stall are worth sixty milkless brutes starving on a hillside. It is absurd to suppose that a good milker can keep up its milk supply if it has to climb hills all day to forage for its food. A good milker is an artificial creature and must be maintained by artificial methods. Hordes of cattle even in the plains are a source of loss and poverty to their owners. In the hills they spell ruin to the plainsman as well as to their owners.

Trees are not everywhere essential to the regeneration of the hillsides. Trees, bushes and grass all have their part to play and are all included in the term ' forest '. Whichever of the three, alone or in combination with the others, makes the best contribution to the welfare of the people must be encouraged in each particular locality. In some places bushes help the grass, and give the best protection to the soil. In others the growth of useless bushes ousts the useful grasses or makes them impossible to cut. In such cases where the bushes are not essential to the

¹ See p. 95.

protection of the hillsides from erosion, the hillmen must be allowed to keep the bush growth under control. In all counter-erosion work, a balance must be struck so that the welfare of all concerned may be promoted to the greatest degree possible. Although a grass slope will not conserve water like a heavily canopied forest, it will stop erosion and thereby very greatly reduce flooding by taking the silt out of the water. Silt is often a very big part of the volume of floods. It would help greatly in convincing both Government and public of the necessity and possibility of reclothing the hills if small typical pieces of hillside, in conspicuous places, were fenced in and carefully preserved, just to show, year by year, what nature left to herself can do to heal her wounds.

Apart from the actual hillsides there is a large area of cultivated and cultivable land, and mixed with it are grazing grounds, which are not steep enough to be treated as hills. Wherever the land is sloping the rain water will run, and the steeper the slope the faster it will run and the more topsoil it will carry if not checked by a vegetative cover. All this land, therefore, whether arable or pasture, must be levelled, terraced and embanked.¹ Even level land must also be so treated, both to prevent erosion, improve grazing, and control the run-off of the rain so as to prevent damage farther down.

In many places gullies are rapidly cutting back into the fields and grazing lands. These gullies must be plugged, that is to say, the head where the water falls over the edge and does the actual cutting must be cut back to a slope, and the slope protected by brushwood fastened down to prevent further cutting until a plant cover is established. If careful *watbandi* is done up above to reduce the run-off,

¹ See *watbandi*, p. 60.

and the slopes are helped to grow grass and shrubs and trees, the gully will stop cutting back. Gully-plugging by itself, of course, only gives a temporary check to the damage. To effect permanent improvement, it must be accompanied by an increase in the plant cover.

All this means work, but there is no lack either of time or labour in the hills and *barani* (unirrigated) areas where the work has to be done, and unlike so many of the things the villager devotes his spare time to, it is all highly profitable work. The fertility of the soil will increase, the land will be saved from further erosion and, particularly if the people will keep cattle, goats and sheep off it, there will be more and better grass to cut than ever there was before. If everybody will lay up their hillsides and deal in this way with their farm lands, the run-off of water will be so reduced in violence that the people down below will be able to set about reclaiming their lost acres from the sand and torrents which used to spread destruction.

3. The application of the remedy. So much for the remedy. The real problem is its application. The hillman is not interested in the plainsman and he does not realize that he is cutting his own throat as well. He thinks the hills are inexhaustible, and when soil or grazing begin to run short in one place, he has only to go a little farther afield to find plenty more. The plainsman does not realize that it is the hillman who is responsible for the increasing shortage of water in wells and canals alike and for the devastation of his field by torrents. Both alike therefore resist every effort to put things right. The plainsman thinks that any attempt to control the hillman is departmental tyranny, and no one is more tenacious of his grazing rights than a hillman, or more suspicious of any one who suggests

that in his own interest he should change his methods of using his hillsides.

Moreover, we all hug the comforting thought that we have a Forest Department to deal with these things and that this Department is in control of the situation. The Forest Department controls less than one-twelfth of the heavily eroding area of the Punjab, and for the rest it can do no more than advise and warn—a voice crying in the wilderness till public opinion insists on paying attention to it!

Even where the Forest Department is in full charge, its operations are very much cramped by the severely 'commercial' management forced upon it. It has no branch for what is called in America 'extension forestry' in which the forester co-operates with the farmers and country-folk, teaching, demonstrating and helping them. Fodder trees offer a very hopeful prospect. The improvement of grasslands has not been touched, except accidentally, and yet grass is a natural resource capable of enormous improvement and it responds amazingly to skilful husbandry.

It is an unfortunate thing that in all countries which respect personal liberty neither vegetable nor animal life can survive. Without rigid control, both game and forests disappear. The reason is obvious. What is everybody's care is nobody's. What is the use of one man taking the 'long' and the public-spirited view and sparing game and forests only to see his neighbour destroy them for their immediate value? The first and biggest thing, therefore, to be done is a very careful and thorough campaign to enlighten the public about this all-important subject. A coloured survey of the catchment areas of our great canals, showing in graded colours from dark green to light yellow

the condition of the hillsides, varying from complete vegetative protection to complete desiccation would be very illuminating, and if we could compare the state of affairs today with what it was fifty years ago even the most optimistic of us would take fright.

The hillman must be taught that he will gain all round from treating his hillsides properly, and the plainsman must be told why his water supply is decreasing and his fields are being ruined.

In the hills small demonstrations are wanted showing the benefit of levelling, terracing, embanking, gully-plugging and all the other remedies for erosion. Similarly demonstrations must be made of how the devastated plains land can be reclaimed.

The easiest way of making a start is to tackle the cultivated land. Until levelled, terraced and embanked, unlevelled farm land is eroding just as badly as uncultivated land or even worse. But it is owned by individuals and it is easier to persuade a single man to protect his interests than to get a whole village to act. Once people have reaped the benefit of protecting their own fields they will be easier to persuade of the necessity of doing something for the common lands, while every field protected is an object lesson to others (see page 65).

All the various methods of publicity must be employed and in particular (i) it must be carefully taught in the schools and colleges in a series of lessons, lectures and demonstrations drawn up jointly by forest experts and educationists. A beginning is being made on these lines in the Punjab. (ii) Models must be prepared for use at shows, fairs, exhibitions, and meetings, as well as in schools and colleges, showing sections of hill and plain before and after denudation. (iii) The wireless and the press and the

public platform must be freely used. In this way a strong public opinion may in time be built up in favour of controlling the use and abuse of the hillsides.

Every encouragement must be given to the hill people to change their methods of living and their routine of farming, to replace their wandering cattle with stall-fed, heavy milking buffaloes, and to terrace and embank their land wherever possible. The growing of fruit and vegetables must be developed as well as other subsidiary industries, and the use of silos, both to preserve fresh fodder and to enable the grass to be cut when at its best instead of being left till the field harvest is over, must be encouraged. Single individuals can do very little by themselves, but panchayats¹ when they have established themselves and gained the confidence of their villages will be able to do much. Co-operative societies have great possibilities. They can organize the reclamation work in the plains already described (pp. 81, 82) and they can organize grazing and land preservation societies in the hills by taking over grazing areas and limiting the number and seasons of cattle grazing, fixing rotation and organizing grass cutting and silos.

The whole of the local revenue, educational, agricultural, forest and co-operative staff must be carefully trained in the whole technique of counter-erosion work, and must be kept long enough in one place to gain the confidence of the people.

In the Salt Range² the division of the common lands has proved an excellent method. While the land was common, it was nobody's care. Now it is divided, each man puts

¹ See p. 157.

² In other districts, however, such as Hoshiarpur and Ambala, partition has not solved the problem.

a dry-stone wall round his share, embanks, terraces and cultivates what he can, and carefully preserves the rest. A certain number of people who used to eke out a precarious living on the common land find themselves displaced, but they are bound to be re-absorbed before long, as the improvement in the hillsides must make work for far more people than did the bare hillsides before enclosure. In some districts remissions of land revenue are given for hills closed to grazing. This is expensive but perhaps terms can be arranged by which the owners get the maximum economic benefits from the grass, timber, and other products compatible with the preservation of the hillsides. The remission can then be reduced sufficiently for the scheme to be capable of expansion at reasonable cost and still remain attractive to the villagers.

Sheep are definitely less mischievous than goats,¹ and somehow or other goats must be eliminated. The stall-fed buffalo must relieve the goat of his task of milk production, mutton must be made the fashionable meat, and the demand for wool must be increased by spreading the knitting habit.

In many places, particularly in the Salt Range and the Gurgaon hills, there are innumerable sites for dams, big and small. These would increase crops and vegetation both above and below, raise the spring level in the plain below, provide water for irrigation and help to control the run-off. Villages are generally too disorganized to build them on their own and these require development by Government and District Boards. Perhaps co-operative bunds are possible.

Government forests, owing to the multiplicity of grazing rights belonging to the villages nearby, are often no better

¹ See p. 257.

than village hillsides. Where the forest has disappeared and the land is cultivable it might be possible to exchange the cultivable land—on condition of proper terracing and embanking—for the extinction or reduction of grazing rights in the rest and so enable the forest to recover. In general, however, it is no use hoping for people to respect Government forests when they don't respect their own, and the first step is to teach the villages the real use and value of their hills.

Above all the goodwill of the people must be secured and they must be convinced that Government is out to help them and not to filch their grazing grounds or destroy their livelihood. Once the present atmosphere of suspicion is replaced by confidence, and Government and villager begin to co-operate in saving and improving the hillsides the problem will be solved.

4. Canal catchment areas. When the Forest Department was established, canal irrigation was in its infancy and hydro-electricity had not been heard of. But now, such has been the development of both these sources of economic prosperity, that the value of the hills for catching and storing water is many times their value either as sources of forest revenue or of land revenue. The whole land revenue and forest revenue of the catchment area of a big Punjab canal is far less than the sum that would be lost by the failure of the canal to give one watering at a critical period—and it is these very critical periods that are being endangered by the misuse of the hills and the disappearance of the forest cover.¹ Has the time arrived to regard hills and forests principally as water-reservoirs and to administer them as such? It must never be

¹ The cost of silt clearance in most canals cannot be less than the land revenue of their catchment areas!

forgotten, of course, that the welfare of the hillmen is the first consideration.¹ But fortunately what will ensure the plainsman's water will also enrich the hillman, and so poor is the hillman that with him a very little money will go a very long way. Ten rupees per cusec of winter canal water, spent on the catchment area which provides it, would ensure that cusec for ever, and perhaps in time might increase it to a cusec and a quarter. What could not be done in the way of counter-erosion work if the land revenue of the hills was used as a bait to encourage the people to farm and to live in such a way as to preserve and increase the value of the hills as reservoirs of water, of grass and of timber? The hillman is poor, underfed, and often riddled with disease. An uplift campaign combining better use of the hillsides and better conditions of living is overdue.

¹ In some hill areas it is a problem of nutrition, human and animal rather than a purely forest problem.

CHAPTER VIII

CATTLE

CATTLE are almost, if not quite, as important as crops for the health and wealth of the villager. Whether it is working the land, carrying the crops to market or feeding the children, the villager is helpless without his cattle. The better the cattle, the better the villager. In a general way, bad cattle eat as much as good, and although many bad cattle will not do the work or provide the milk that a few good ones will, they will eat far more food and so cost far more money to keep.

In the old days, cattle were counted as wealth. That day has gone. Cattle by themselves are no longer wealth, in fact they consume wealth and in return must produce wealth. The better the cattle the fewer will be needed, and the fewer cattle kept the more food there will be for them. Never keep animals which are not earning their keep ; neither you nor the country can afford it. The first principle, therefore, of good husbandry is to keep as good cattle as possible and no more than are necessary for the work which their owner has for them to do.¹

Milch cattle are naturally bred near the towns, but the ideal places for breeding plough and transport cattle are

¹ To appreciate the importance of animal husbandry in the internal economy of this country an article written by Col Sir Arthur Oliver, Animal Husbandry Expert to the Imperial Council of Agricultural Research, should be read. See *Proceedings* of the first meeting of the Animal Husbandry Wing of the Board of Agriculture and Animal Husbandry, Part II, p. 268, Appendix XXV (b) (Government of India Press, 1934).

the *barani* areas, particularly where the water level is high enough for fodder crops to be grown on the wells. Here cattle breeding could and should be a staple industry, and much more land and attention should be devoted to the growing of fodder crops both on irrigated and unirrigated land, leaving food grain to be imported from outside when necessary. If cattle breeding and dairying can be made profitable by improved markets for good stock and pure products, and good prices for bulls, all efforts to improve stock will become very much easier. In town and country alike societies, local bodies and individuals should do all in their power to assist in the encouragement of this all-important national industry, and in particular in raising money for prizes, medals and premia and for the organization of shows.

1. **The improvement of cattle.** The improvement of cattle, like everything else, must be done on scientific lines and in a businesslike way. There are three things to attend to :¹

(i) Food.

(ii) Disease.

(iii) Pedigree.

(i) *Food.* Good cattle must have plenty of good food, otherwise the calves cannot develop properly, the cows cannot give their full milk, and the bullocks cannot work. Never forget that the underfeeding of cattle is the very worst kind of farming. It spoils the cattle, undoes all attempts to grade them up and ruins the farmer. Well-fed cattle mean better manure and more fertile soil.

The value of grazing grounds will be doubled by

¹ All that is said in this chapter about cattle applies to buffaloes as well, although in general more attention is paid both to their breeding and to their keep. Is this because the housewife usually looks after the buffalo ?

watbandi.¹ Silos² are essential in areas where well water or perennial canal water is not available to assist fodder production. Grass on hillsides should be cut, not grazed, as grazing rapidly deteriorates both the grass and the hillside. Once people cut grass for stall-fed cattle instead of driving hordes of useless cattle to jostle for an entirely insufficient ration on hillsides and grazing grounds,³ they will begin to eliminate useless and superfluous beasts so as not to waste time in cutting grass for them.

The most difficult months for fodder are November-December and May-June. In *barani* areas the silos will be opened then. When irrigation is obtainable, the Agricultural Department can show the farmer how to raise 600 maunds of green fodder in a year from an acre of land, and how during the critical months he can have green fodder in plenty. Many farmers seem to forget that cotton seed is very cheap and is an excellent cattle food.

(ii) *Disease*. The Punjab, like other parts of India, is ravaged by all the worst epidemic cattle diseases known. Many of these could be prevented if all the new cattle bought from fairs, markets or dealers, or borrowed from the villages, were tied up separately for ten days—and fed and watered separately—before being allowed to mix with the other cattle. The Veterinary Department has sera and vaccines for controlling infectious diseases, and these should be freely used, but no system of inoculation will stamp out these diseases until the villagers take the common sense precaution of segregating cattle coming from infected,

¹ See pp. 60, 74, 85, 277 (19), 283 (31, 4).

² See p. 278 (20). A silo is a pit in which green grass and fodder crops are tightly packed, and sealed with earth at the top to keep out air and water. Fodder thus stored will keep fresh for years and is the best reserve possible.

³ See p. 84.

suspected or unknown environments. This is a little difficult until the village organizes itself, but so is everything else worth doing !

The District Board provides Veterinary Hospitals all over the Province. These are paid for by the villagers' taxes, and every villager should make the fullest use of them. Where the District Board cannot provide them, the people should join together and organize a co-operative Veterinary Hospital.¹ Co-operative first-aid for animals is organized in some districts.²

The drainage water of the village runs into ponds in which rubbish is dumped and then the cattle are expected to drink this filthy mixture ! Troughs should be provided on wells, and all ponds where cattle are to drink or bathe should be embanked towards the village to keep out all water from that dirty source, and should get their water either from the canal or from the fields and jungle. Cattle require fresh air just as much as human beings and all stables and stalls should have plenty of ventilation.

(iii) *Pedigree*. Selective breeding is the first principle of cattle improvement. Always breed from the best cows and the best bulls. Too many people breed from any cow and any bull. This is foolish. No amount of trouble and expense are too much to secure the very best bull, and the very best cows and heifers. Pedigree bulls are provided by District Boards, but they cannot hope to provide a quarter of the total number required, at the rate of at least one bull for every hundred cows. The bulls issued by the local body should as far as possible be paid for in a lump sum or in four annual payments. At the end of four years the bull should be passed on to another area, to avoid inbreeding. The village should be credited with the price

¹ See p. 177.

² See p. 172.

at which it is passed on, and it should then take another to be similarly paid for. It is the duty of every villager to make his own arrangements for bulls.¹ Every big landlord must provide his own, for himself and his tenants and dependants. A pedigree bull, and, if possible, a pedigree herd of cattle should be the hall-mark of the country gentleman. The smaller zemindars must join together—nothing good can be done in a village without organization—and buy their pedigree bull, one for every hundred cows. The village panchayat or the village Farmers' Association can of course buy a bull, and so can a cattle breeding or any other form of village co-operative society.² Court of Wards Estates must of course have their own bulls. Once a landowner or a society has acquired a bull, the next principle of pedigree breeding can be observed: cows can be selected and registered, the bull's coverings can be recorded, and the progeny can be earmarked and entered in a register. Earmarking is done with a punch and tattooing ink.³ Unless accurate breeding records are kept, the breeder can never know which are the best bulls and cows for breeding. When breeding for milk, records of the milk must be kept, so that only the best milkers may be selected for breeding. Experience in India, as in other countries, has now shown conclusively that it pays best, and is best for the herd, to wean all calves at birth and to rear them by hand, all the milk being drawn by hand from the cows, weighed and entered in a register. If the calves are not weaned at birth, the cows can be milked out and the milk weighed and entered in a register on one day of each week, the calves on those days being fed on milk drawn by hand from the cow. Although the breeding of pedigree milch cattle is a separate business from the

¹ See p. 18.

² See p. 173.

³ See p. 271.



GOOD CATTLE

They mean plenty of milk and well-ploughed land



IMPROVED BIKANIR RAM

The basis of the industries of knitting and making blankets and
woollen cloth [See p. 255]

breeding of pedigree draught cattle, from the villagers' point of view 'dual purpose' cattle are a practical proposition. The average milk production of village cows can be very greatly increased without interfering with their capacity to produce good draught bullocks.

2. Cattle breeding societies.¹ The essentials of a cattle-breeding society are :

- (i) Registration as a co-operative society.
- (ii) A stud bull, and a stable and yard where it can be kept when it is not desired to let it run loose among the herds or in the crops.
- (iii) Elimination of all other bulls.
- (iv) A register of selected cows.
- (v) A record of coverings and calvings.
- (vi) Earmarking of cows and progeny.
- (vii) Inoculation of stock against disease.
- (viii) Special premia or prizes for the cows and their progeny, awarded according to the merit of the stock, the care and attention devoted to them, and the way the veterinary officer's instructions have been followed.
- (ix) Milk recording is essential for grading up milk production.

To give them funds for their operations, cattle breeding societies should levy (a) small entrance fees, (b) covering fees for cows of non-members if not of members also, (c) small fees on the birth of calves and on the sale of members' cattle.

Another form of co-operative society has a milk-collecting centre where milk is bought from members and marketed either as milk or milk products, the skim milk being bought back for feeding children and calves.

It should be noted that premia and prizes are far better

¹ See p. 173.

than fixed stipends.¹ Once a man has got a stipend, all he need do is the minimum necessary to prevent forfeiture, and forfeiture is always a difficult and unpleasant business. Besides, no one is encouraged by someone else's stipend. But premia and prizes have to be won all the year round and will allow no slacking, as they rise and fall according to the merits of each stock owner and of his stock, and the standard of competition of the whole society.

At shows in the neighbourhood of co-operative cattle breeding societies, special classes and good prizes should be reserved for the registered stock of the breeding societies. People must be encouraged to join these co-operative societies, as without the little discipline and control they provide, accurate registration will never be achieved, and without accuracy there will be no 'pedigree' stock and the greatly enhanced marked value of such stock will be lost. All possible benefits must be reserved for members and members only, and if people are not keen enough to submit to this little measure of discipline and control, they are not keen enough to be worth bothering about.

Manure pits, better stabling, silos, water supply and every other improvement in the production of food and fodder and in the health of man and beast, and in business methods, could be steadily introduced and the whole standard of farming and animal husbandry raised by the organization of co-operative cattle breeding societies and the judicious use of premia and prizes.

Co-operative cattle breeding societies should, if possible, spread out from definite centres. The bigger the area and the more complete the control, the greater will be the accuracy of the records and the higher will the price of

¹ The same of course applies to squares of land given for any specific purpose.

the stock rise. This may sound complicated, but it is not, if only people will organize themselves in cattle breeding or milk recording societies, and if only the bigger landlords and gentry will use their brains and their education to improve their estates. But whether complicated or not, it is the only way to secure good cattle and thereby good farms and good homes, and the quicker every villager sets about devoting his time, thought, money and labour to improving his home and farm, the sooner will the village be happy, healthy and prosperous.

3. How District Boards and district authorities can help. The District Board and district authorities can do a great deal to encourage the grading up of the cattle of their districts. For instance :

(i) The District Board in consultation with the veterinary authorities and the breeders must decide which breeds are to be encouraged in each area, and then concentrate on those selected, doing their best to avoid the mixing of breeds and the production of mongrels. A cattle survey must be made of every district and each area put into its grade. The best bulls will then as far as possible be put into the best areas, so that the best value may be got from them. The demand for stud bulls is increasing so rapidly that there are already insufficient top-grade bulls to go round. For the inferior areas, bulls are selected from the best areas, and as co-operative cattle breeding societies and registration spreads, this will become increasingly easy to do, and better and better bulls will be secured.

(ii) Existing shows should be used wherever possible for the purpose of encouraging the improvement of cattle, and where necessary special cattle shows should be organized—one-day shows in the bigger villages, carefully selected so that every village is within reach of some show, and more

elaborate shows at central places. These shows can be used for all reconstruction work, and a sort of exhibition or uplift circus can go from village to village with sports, games and cinemas to add to the merriment.¹

(iii) At all shows, exhibitions of cattle on the lines of the present Departmental exhibits should be organized. If well demonstrated by keen men, these exhibitions are invaluable. They show the results of careful and careless breeding, e.g. (a) good bull + good cow = excellent calf, (b) good bull + indifferent cow = fair calf, (c) bad bull + good cow = bad calf, (d) bad bull + bad cow = very bad calf, and so on, each pen of cattle teaching a definite lesson.

(iv) At shows and fairs every effort must be made to ensure that the cattle and their owners are treated well, and that good prizes are given. A common mistake is to treat the cattle—upon whose shoulders the whole of India is carried—as an unwelcome sideshow, and to make the prize-giving a hole-and-corner affair and the prizes themselves ludicrously small. Cattle judging must be a big event, and must not be done in a corner while something more exciting is going on at the centre of the show. There must be parades of cattle, good prizes, prominent positions for the owners, and everything else possible done to ensure that the breeder of a good animal shall realize that he is a somebody and that good cattle are worth breeding. Tent-pegging and other spectacular shows must be used to collect people to see and applaud the cattle and their owners.

(v) Every effort must be made to extend the establishment of cattle breeding and milk recording societies and also to encourage panchayats to undertake cattle improvement.

¹ See pp. 217, 225.

(vi) The country gentry, landlords and the Court of Wards Estates must be stimulated to do their duty in this matter. A list of those who buy and keep pedigree bulls can each year be published in the district newspaper, hung in the District Board hall and in the Commissioner's and Deputy Commissioner's waiting rooms, special honour can be done to them at shows and public functions, annual sanads can be given them. Why should not the annual sanad for buying and keeping a stud bull be the equivalent of a District *Darbari* certificate, or carry with it honorary membership of the *Dehat Sudhar* Committee ?¹

The giving of *taccavi* for buying stud bulls is within the letter and spirit of the *Taccavi* Act (Act XII of 1884).

(vii) District Boards would do well to allot a fixed percentage of their income to animal husbandry, so that continuity, which is the essential element of a long-time process like cattle improvement, may be assured. Money should be provided for good prizes at shows and for the granting of premia for cattle breeding societies.

(viii) Cattle markets should be organized to help local bodies to raise money for cattle breeding and to help breeders to get good markets and prices for their stock. Beware lest money realized from cattle markets and fairs be devoted to other objects ; except for very special reasons it should be earmarked for the development and improvement of stock breeding.

(ix) District Boards should frame and enforce by-laws for the registration of approved bulls and the elimination of unregistered bulls. Some District Boards have framed by-laws, but they are not always enforced and the harm done by bad bulls is continuing. Once the provision of

¹ See p. 197.

stud bulls is taken in hand, a castration campaign must be continually and vigorously prosecuted.

(x) Short, simple classes have been organized at the Hissar cattle farm to teach owners and breeders the principles of breeding, feeding and care of stock, and these should be taken full advantage of by landlords and stock breeders.

(xi) The organization of co-operative dairy societies¹ to provide the towns with milk and ghee would kill several birds with one stone. The towns are short of pure milk and ghee and the villagers, besides wanting profitable side-lines, can make good use of the separated milk. This contains all the protein and mineral salts and much of the vitamins which are the most valuable nutritive constituents of milk, and are particularly valuable for the proper development of children. Dairy societies would help to grade up milch cattle. The dairy societies must join with the town health authorities in 'Drink More Milk' and 'Buy Pure Milk and Ghee' campaigns. If possible, consumers also must be co-operatively organized.

4. How municipalities can help.² Municipal committees should do all they can to help. The aim of every town authority should be to remove all cattle outside the limits of the town, but this is impossible till dairying is organized in the villages round about and the sale of milk properly controlled in the town, so that good milk at a reasonable price is readily obtainable. Some town committees run cattle fairs, but few devote the profits to improvement of the ghee and milk supply, by such means as (i) finding money for stud bulls in the villages round, (ii) establishing testing stations for milk and ghee, (iii) improving the marketing arrangements for milk and milk products,

¹ See pp. 254, 276.

² See pp. 254, 275.

(iv) encouraging the formation of co-operative societies of (a) consumers in the town, and of (b) producers outside, and (v) encouraging the people to drink more milk and to insist on pure milk and ghee. Vegetable ghee does not possess the valuable feeding properties of pure ghee manufactured entirely from milk.

5. **Covering fees.** Covering fees are rather a vexed question. Some people think they discourage the use of good bulls or have the effect of restricting their services to well-to-do villagers. But *mirásis* and others charge and receive good fees for the stallions they keep. Why should not a small fee¹ be charged for the services of a stud bull? Once this custom became established—it is already in force in some areas—the keeping of pedigree bulls would be a self-supporting business, and half our difficulties in cattle improvement would at once disappear. Co-operative societies should charge covering fees from non-members while the bulls are free or at reduced rates for members. Panchayats, if they wished, could either levy a small bull cess on all cows or charge covering fees. The latter is the better as it will assist the recording of coverings. The charging of fees would help to solve the problem of feeding and housing the stud bull. The panchayat or the society or the village or landlord responsible for the bull should undoubtedly provide a stable and a small yard where the bull might be confined at night and at other times when it is not advisable to let it roam in the fields or with the herds.

6. **Export trade.** There is a very flourishing export trade in cattle from some tracts, and people suggest that it should be stopped, for fear that the best cattle will be exported and lost to the area. To kill such a profitable trade would, of course, be sheer madness. If there is any

¹ See p. 18.

danger of losing the best breeding stock, then the duty of those interested in the prosperity of the area is (i) by properly organized publicity to warn breeders against selling the geese that lay the golden eggs, i.e. their best cows, and particularly pedigree cows ; (ii) to found cattle breeding societies and to start pedigree herds ; (iii) to organize cattle shows ; (iv) to raise money for prizes and premia, and (v) to do everything else possible to popularize the keeping and breeding of good stock and to raise the price in the locality of first-class breeding stock. It has been suggested that a small cess on exported cattle would provide the nucleus of a fund which could be most usefully spent in helping and improving the industry in every way possible. The bringing back of exported cows to the breeding area when they are dry has been suggested, but this probably would be no help to the industry.

CHAPTER IX

HEALTH

THE village should be a very healthy place, and, given steady work and mutual goodwill, most of the disease and ill-health it now suffers from is easy preventable. If you run your eye down the tabulated list of diseases in a rural dispensary you will find that well over half are caused by dirt ; the absence of light and air are responsible for a lot more, then malaria and its by-products, and finally, absence of the knowledge of how to plan and cook a balanced diet.

Light, air, and cleanliness are the three foundations of good health. A few annas will buy the Punjab standard ventilator, and cleanliness is just hard work and organization. The details are dealt with in the chapter on Home and Village.

1. **Cleanliness.** Many people think that cleanliness is the whole of Rural Reconstruction. It is not so, of course ; there are plenty more things besides, as this book tries to show, but so important is cleanliness that it might well be the whole programme both of better towns and of better villages.

Cleanliness is the beginning of good health and is therefore one of the main ingredients of happiness. Without cleanliness the children cannot hope for good eyes, without cleanliness the fields will go short of manure.

Cleanliness means self-respect and it means self-control, and discipline and corporate effort, and these four things are the basis of civilized life. The teaching of clean, tidy

and regular habits is the basis of the character-training which first the mother and then the school should impart to every boy and girl in the land.

Cleanliness is a great tonic. The first thing that is done to a patient when he comes to hospital is to wash him and put him into clean sheets. The first thing done to a recruit in the army is to teach him to be clean.

Cleanliness of body and of environment brings alertness of mind. The neglect of it means dirty, untidy villages, slovenly farming and unweeded fields, squalid, careless and apathetic villagers. Cleanliness is the acid test of culture and of civilization, and is the greatest educator of mankind that has yet been devised.

When, therefore, cleanliness is stressed, remember that it is the foundation of all progress both in town and country and that whatever your duty or calling, cleanliness comes first, last and all the time, cleanliness of mind, body, clothes, home—and all that is in the home—drinking-water, streets, village and fields.

2. Food and other necessities. Good food is another element of good health. The villager will have a better diet when he pays the attention he should to fruit, vegetables, honey, and poultry, and when in general he works early and late and devotes the whole of his time, attention, labour and capital to getting all he possibly can out of his land, instead of trying to raise his crops with the minimum of physical and mental effort. The feeding of the children is the job of the mother, and a lot of knowledge of this most important part of home-keeping is handed down from mother to daughter. There is, however, a lot more to learn about food values and cooking which can only be acquired by special study and teaching.

The women already keep their homes spick and span,

their kitchens are spotlessly clean, and all their pots and pans are polished till they shine. When they add to all this a knowledge of simple hygiene, and learn what mischief flies, rats, mice and other creatures can do, and how drinking-water is contaminated and with what results, there will be much less sickness in the village.

Malnutrition is a big cause of disease in the Punjab but it is by no means always the result of poverty. It is often due to ignorance, carelessness, idleness, or a false pride which prevents the farmer growing vegetables.

Good, clean, well-cooked food and water are well within the reach of most Punjab villagers, if they will make up their minds to the continuous and careful effort necessary to obtain them, and see that the housewives get the knowledge they need of food values and of how to cook all kinds of food without reducing their food value.

The housewife must, of course, keep a few simple medicines, but until she has been to school this will be difficult.

Whenever a doctor examines schoolchildren he finds a very high percentage of them defective in some way or other and many of them in several ways. These defects if tackled in childhood can often be corrected, but if allowed to remain will be a life-long handicap. The medical examination of schoolchildren costs money and parents must be taught to pay¹ the small sum necessary—only an anna or two a month—and to carry out the doctor's instructions, carefully and continuously, whenever he advises any kind of treatment. It is both cruel and stupid not to find the small sum necessary for regular examination and treatment of one's children and not to insist on doing all possible to rectify any defects which the doctor finds. Malnutrition

¹ See p. 18.

is painfully common in children and often due not to poverty but to ignorance or carelessness. The housewife must learn all about the protective foods and must see that her children get a good square meal before they start for school in the morning and take a good midday meal with them.¹

3. *Diseases. Back to nature.* In a general way all diseases and pests, whether of man, beast or plant, are the protest of nature against unnatural treatment, either a dirty environment, a shortage of food—including, of course, light, air, and water—or the wrong kind of food. Crops will resist insects, drought, frost and all other enemies much better in well-ploughed, well-manured, well-watered and well-weeded soil. Animals kept in clean, airy stables and given plenty of good fodder to eat and clean water to drink will resist disease far better than half-starved creatures kept in dirt and darkness, and drinking a filthy mixture of rubbish and water. Human beings will resist disease far better if they live in clean, airy houses and are fed with a clean well-cooked and well-balanced diet. The much dreaded epidemic diseases of cholera, plague and smallpox should have few terrors for the careful villager. Enteric is another disease which thrives in an environment of dirt and carelessness. Flies must be reduced to a minimum by the disposal of all rubbish and refuse and by the use of latrines. Food, of course, must be kept covered. The well-trained housewife will see to it that the food and water are clean and uncontaminated. Vegetables and fruit must be fresh and clean. There are painless inoculations to keep off both enteric and cholera. Hookworm is spread by the habit of using the ground round the village as a latrine, and the remedy is proper latrines. Guinea-worm is spread by using dirty water for drinking purposes.

¹ See p. 183

In a few areas water supply is an engineering problem requiring large sums of money, but where there are wells the water can and must be kept pure by following a few simple instructions.¹ Where it is necessary to use tanks they must be kept as clean as possible by keeping cattle and animals away—these must have their own separate tanks—and by keeping village water out of them and seeing that jungle water only is allowed to get into them.

Vaccination, and re-vaccination every six years—or sooner if careless neighbours cause an epidemic—combined with light, air and cleanliness will keep smallpox away.² To make vaccination systematic and to avoid re-vaccinating the same willing people year after year while others escape altogether, village vaccination registers are advisable, kept by some reliable person or authority, resident in the village. Schools, of course, have their own registers kept by the school staff.³

Plague is primarily a rat disease and its prevention is just a question of getting rid of rats. Rats hate light, but still more, the well-lighted house shows the rats up, and rouses the householder to get rid of them, by cats, traps or poison, and to seal up their holes. Boxes and grain-bins should be raised high enough off the ground to prevent rats making their homes beneath them.

If a plague epidemic threatens, mass inoculation is the only safeguard. Evacuation of the village is a broken reed. Once the people are scattered in the fields it is impossible to round them up for inoculation. They run away and hide in the corn and neither parents nor village elders can be sure that when the doctor comes there will be no

¹ See p. 45.

² See pp. 277 (3), 283 (12, i).

³ See p. 184.

absentees. Meanwhile, people find that the nights are colder than they expected and back they go for blankets ; the housewife goes back and rummages for something she left behind ; and they soon bring the plague with them.

Tuberculosis is a disease of civilization : here ' Back to nature ' is peculiarly applicable. Fresh air day and night, and fresh, natural, unsophisticated food are complete preventives. Not every villager suffering from tuberculosis can hope to get to a sanatorium. But the villager can do several things. (i) He can get the patient and all his household examined by the doctor to find out who are actually infected and what is the best that can be done for them. (ii) Those actually suffering can then be as far as possible segregated by day and by night from each other and from the rest of the family. The best place for them is an airy *chappar* (shed) on the roof, with plenty of blankets in winter. (iii) Good food, rest and fresh air is all that can be done in the village for the patients, but these are the principal things in any treatment of this disease. (iv) If a patient must enter the same room as anybody else, see that the room has ample light and air. (v) The patient's sputum should invariably be deposited in a receptacle kept for the purpose and should be carefully burned. Even a cigarette tin will do, or a broken crock. Remember that nature puts up the most vigorous resistance to tuberculosis and given a fair chance will win. ' So don't attempt to hide the disease. At the very earliest suspicion go, or take the patient, to the doctor and find out the best or the worst, and do what the doctor advises. It will save money, it will save suffering and trouble, it will save life. There is a very great deal of hidden or unsuspected tuberculosis in town and village alike, and if only you will help to search it out, segregate the sufferers and remove the conditions which produced it,

you will be doing a very great deal to check the spread of this scourge.

Malaria is more difficult. Some of the unnecessary collections¹ of water that might breed mosquitoes have been dealt with in pp. 46-8. Even a broken potsherd will hold enough water in the rains to spread malaria ! The housewife must see that none can breed in her water pots ; every week these must all be emptied. Every sort of depression must be watched and if it can't be filled, it must be drained or oiled. Borrow-pits for roads and other earthwork are favourite breeding places and must either be connected up with each other and drained or treated with oil or Paris green during the mosquito season. They must never be dug near human habitations. Even so, do what we will, mosquitoes will turn up from somewhere, so that mosquito-nets are not luxuries but necessities for the wise villager.² One good dose of fever during sowing or harvest time costs more than a net each for the whole family. Don't think that one net, for the breadwinner, is enough. Everybody must have one. The mosquito's first choice is the children, and once there is any one in the compound with malaria germs in his blood, all are in danger. The mosquito gets his poison from the blood of someone with fever, or who still has the germs in his blood. Once, therefore, you have a fever patient in the neighbourhood, you may be sure that the mosquitoes will find an opportunity of biting him. That will put the poison into the

¹ The deep village pond does not usually breed malarial mosquitoes ; but shallow pools and edges are favourite places for their larvae and they must be kept free of grass weeds and puddles. So must wells and canal channels in the neighbourhood of villages and farms. See also pp. 277 (11), 283 (11).

² Good cheap mosquito-nets are made by co-operative societies of weavers and sold by the Industrial Assistant Registrar of Co-operative Societies, Lahore.

mosquito, where it will develop, and sooner or later the mosquito will find his chance to pass the poison on. So every one must be netted, particularly, of course, any one who has, or recently has had, malaria. In fact if there is a shortage of nets, use them first for those who have the germs in their blood, so as, if possible, to prevent the mosquitoes being able to get any poison to infect others with. Remember one thing: a mosquito cannot pass on the poison until it has been inside its body for about ten days. This gives you ten days in which to catch the mosquito after it has picked up the poison. If, therefore, you make a point of killing, every day, every mosquito you can possibly catch, you will be pretty certain of catching any malaria-infected ones there may be, before their ten days are up and they can pass on the infection. There are many ways of catching mosquitoes: *Flit* costs a little money but not as much as malaria. Teach the children to soap their hands, shake the curtains and stir up all the likely sleeping-places, and then catch the mosquitoes on their soapy hands as they fly out. There are various kinds of traps too, which your Health Officer will tell you about. The anopheles or malaria-carrying mosquito stands on his head when at rest and the culex or harmless one sits at rest in the shape of an arch. Their larvae in the water, however, are the reverse. The anopheles larva lies flat below the surface of the water and the culex larva lies at an angle. When in doubt, destroy them all! Every villager should be able to recognize them both at sight in both states, and so should every rural worker, gazetted, non-gazetted, official or non-official.

Quinine, of course, every home must stock. Don't wait for free issues. Buy and keep it yourself just as you keep pepper and salt. It is quite cheap, and more important

than many of the things you regularly buy for household use. The doses are eight or ten grains twice a day for men, five or six for women and one or two for children. Post offices sell six three-grain tablets for one anna.

The large scale diffusion¹ of quinine among the rural population is a tough problem. They have had free quinine and now will not buy it. Doubtless many are too poor to buy, but there are plenty who can buy, and it will be time enough to bother about those who cannot when all those who can have got their bottle of pills in the cupboard, and the traditional generosity of the villager has given what he feels inclined to give to his poor neighbour or dependant. At present it is fashionable to accept free quinine. It must be made fashionable to pay, to be beholden to no one for such necessities.² The easiest way to do this would be to stop entirely all free quinine, and use for free distribution the quinine alkaloids. They are even more nasty than quinine, they are a dirty brown colour, but in slightly larger doses they are just as good for curing malaria, and finally they are cheaper. They are ideal for free issue to the poor and needy, and who but the genuinely poor would touch the stuff? Adopt this policy and it would immediately become the fashion to stock pure quinine and to parade the fact that we have it. Snobbery? Of course it is, but need that trouble us if we can thereby defeat malaria? Meanwhile, of course, a good brand of pure quinine must be on sale in every village, with a Government guarantee behind it, and sales must be popularized by every means that Government, local bodies, the trade, and organized philanthropy, all working together, can devise.

4. **Eyes.**³ The amount of suffering and harm caused by eye-trouble is appalling. Nine-tenths of it is due to dirt

¹ See p. 269.

² See p. 18.

³ See p. 277 (10).

or to carelessness, and is therefore easily preventable. Most of the mischief is done in childhood, and most of the pain is suffered by children. This makes it all the sadder, as the poor children are not to blame ; it is their parents who are responsible for all this needless pain and suffering. The harm done lasts throughout life, and there are blind and damaged eyes in every village.

There are a few simple things to remember about eyes and if they are carefully acted on most of the trouble will disappear.

(i) *Dirt* is the main cause of all eye-troubles. If the village is dirty, dirt will blow into people's eyes, and children playing in the dirt, for want of a clean place to play in, poor dears, will get more dirt in. Dirty villages breed swarms of flies. Flies are the best agents for giving and spreading eye-diseases (and for that matter, all other diseases). Flies delight to sit on children's eyes, particularly diseased eyes, and dirty children's eyes. When eyes hurt or get dirt into them, both children and parents will rub them with dirty fingers, dirty rags, dirty clothes. And so it goes on. The number of permanently damaged eyes in a typical old dirty village is big enough to make the angels weep. I once visited a village where I could not find one single pair of sound eyes among the children.

The remedy is cleanliness, clean villages, clean children, clean clothes, clean eyes, clean faces. Children and their clothes must be regularly washed, eyes must be washed several times a day with clean water, as a matter of course, and at all other times when they get dirt or dust into them.

(ii) *Doctors*. Eye diseases, and injuries to eyes, require doctors. You cannot treat eyes at home. You can and must keep eyes clean at home, but for treatment you must take them to the doctor. God will not give your children

a second pair of eyes, so take no risks with the first. At the first sign of trouble away with them to the doctor. He is paid for out of your taxes, and let us hope out of your subscriptions too, so the more use you make of him the more value you are getting for your money.

Avoid quacks and quack medicines and charms, whether for eyes or for any other disease or trouble.

(iii) *Eye diseases are catching.* Eye diseases, particularly when the eyes are red, inflamed or discharging, are very catching. They can spread from eye to eye and from child to child, until whole families and whole villages are infected. So never rub two eyes, even belonging to the same child, with the same finger or cloth or rag, or cotton wool, and never use a *surma*¹ rod for more than one child (*surma* is good but every child must have its own rod).

Never let children with red or discharging eyes go to school or stay in school, and if you possibly can, segregate them from all other children, and don't even let them play with other children till their eyes are well again.

(iv) *The cleaning of eyes.* Until red or discharging eyes can be treated in hospital they must be kept clean and the discharge not allowed to collect in the eyes, as it will attract flies.

The washing of eyes must be done with clean water, clean hands, clean cloth, clean towels. Cold weak tea, or salt and water, are safe eyewashes.

To wipe the eyes, use clean cotton from the fields. Boil it in water, let it cool, and then keep it in a covered vessel. Use each bit once, and for one eye only, and then burn it. The salt solution is one teaspoonful of clean salt to one pint of boiling water. Allow it to cool, of course, before using it.

¹ Antimony.

At night time a drop of castor oil put into the eye will prevent the lids from sticking.

(v) *The rural dispensary.* For eye diseases (and for all other diseases too) the village must keep in touch with the nearest dispensary. The schoolmaster, a lambardar, or some other good citizen should make up parties of children, and take them to the doctor if the hospital is within reach. If not, arrange with the doctor to visit the village, and have every one who should see him ready when he comes. Include in the party all children who cannot see the black-board or their lesson books properly, all children with squints, or bad eyes of any kind. And while you are about it include in your hospital party all sufferers from every kind of disease and ailment. Why not make the fullest use possible of the doctor and try to reduce all preventable or curable suffering in your village to a minimum?

(vi) *Newborn babies.* Every baby, as soon as it is born, must have a drop of one per cent solution of silver nitrate put into each eye to avoid neo-natal ophthalmia. Certificated dais are taught to do this, so never call any other kind of dai.

Vaccination and re-vaccination will remove yet another cause of possible eye-trouble.

5. Organization. Curative and preventive health services are very difficult to organize in our innumerable villages. We have a network of dispensaries with the nearly achieved ambition of having them not more than ten miles apart. But the more ill a man is, the harder is it to move him;¹ rural doctors sit partially idle at their dispensaries although between them and the next dispensary

¹ A light ambulance with bicycle wheels which one man or a Boy Scout can push has been designed, and is being marketed in Lahore by R. S. Janki Das, cycle-maker.

there are enough sick people to keep several doctors working overtime, villagers would rather die than pay the small fee the doctors are entitled to claim for visiting them at home, and private practitioners can't or won't build up village practices. The village with a dispensary is too often no cleaner or healthier than the village without one. If an epidemic starts in a village, it may be a week or more before it is discovered and then it is too late to stop it spreading. Except in the immediate vicinity of a dispensary the school-children are without any hope of medical inspection or follow-up treatment. Meanwhile the women demand female doctors for their particular troubles, while there are practically no female doctors in any rural dispensaries, an entirely inadequate supply of female doctors in the province at large, and the few there are are extremely difficult to post in rural areas. A certain number of dais are being trained, but there is no one to exercise any adequate supervision of them after they receive their certificates or to prevent untrained dais from continuing to practise.

Finally our finances have been nearly exhausted in providing these curative rural centres—and even they are entirely insufficient—and the preventive service has to consist of a District Health Officer—a very few Sanitary Inspectors, Vaccinators and small gangs of workmen. And yet curative work alone will never raise the general level of health. The causes of diseases must also be systematically attacked. Curative work without preventive is rather like plugging the leaks in the ceiling below without sending someone upstairs to stop the hole in the bath-pipes! But how can the curative work be withdrawn and replaced by preventive, once it is established and the sick and suffering are coming for treatment. So far from reducing curative work, as rural welfare spreads and the people

become more health conscious, more and better curative services will be wanted.

What is the remedy for all this? Several things seem obvious :

- (i) more money must be found, and to do that those privileged persons—principally males, of course—who now absorb most of the funds available for the relief of human suffering, must somehow be got to pay according to their means for attendance and medicines.
- (ii) More female doctors must be made available for the village women.
- (iii) Preventive and curative work must be combined and rural doctors must tour.

(i) *The payment of fees.* The second point is dealt with on p. 145. As for the unwillingness of even well-to-do people to pay for doctors and medicines, let us say at once that it is not due to any innate meanness. There is plenty of charity about, but most of it goes into traditional channels which many of us consider either out of date or unworthy. Mission Hospitals have little trouble in obtaining payment for services rendered. These are perhaps the five main reasons for the reluctance of patients to pay for medical services.

- (a) Free treatment, free quinine, free everything has been lavished indiscriminately upon the people, with the notion—entirely incorrect as it is proved—that once they had learnt the value of these things they would gladly pay for them. The only result has been pauperization, and still less willingness to pay.
- (b) Government servants receive free medical aid and a lot of other free things as part of the conditions of their service. As Government service is everyone's

ambition and sets the standard in nearly every direction, it has become the hall-mark of social status not to pay one's way but to get things free !

- (c) Payers of land revenue and local rate say that as medical aid is provided out of their taxes, they have every right to be on the free list. Quite logical in its way, but logic won't help to spread medical aid ; and without fresh sources of money no more expansion is possible, which means that the women are going to be neglected for ever as the men have taken the first and the lion's share of what money has hitherto been available.
- (d) No real effort has ever been made to teach the necessity of paying for doctors and medicines.
- (e) That intangible thing called ' service ' is not always conspicuous in Government dispensaries and hospitals.

Whatever the cause, there is intense opposition to payment. Quite apart from the necessity for more money to extend medical relief among women and children, if doctors had to visit private houses free, they would be harried unmercifully.¹ The non-paying mentality must somehow be defeated. It must become a matter of honour among all classes to pay whatever they can reasonably afford, and public opinion must be heavily on the side of payment.

In a co-operative hospital—this system has been greatly elaborated in Czechoslovakia and in Japan—payment is easily arranged. The doctor visits all members on demand and sends his account to the society and not to the patient. It is for the society to debit each member with the amount he should pay and to settle the proportion which the doctor should receive in addition to his salary.

¹ Lady doctors are more victimized than men by patients who can but won't pay.

The co-operative movement and the panchayat system should obviously be brought into the medical aid business, and whether they merely organized an afternoon clinic for the doctor to visit, or (perhaps in combination with the subsidized practitioner system) had a full-fledged dispensary, they might be able to establish the habit of paying for attendance and medicine. The doctor would belong to the panchayat or co-operative society which could fix (and collect) fees, and assess paying capacity and the proportionate rates for those who belonged to the panchayat area or were members of the co-operative society, and for outsiders.

As another way of developing payment how would it do to hand over the medical work of an area—subject to the existing system of supervision—to the local branch of the Red Cross along with the public funds it now receives? People who were ready enough to accept charity from public funds might hesitate to sponge upon a local society which was raising locally all the money needed for improvement and expansion.

Some rural doctors have been able to raise considerable sums locally for the improvement of their dispensaries and it should not be difficult for an active local committee or almoner to get people to contribute at weddings and on other social and special occasions.

As for fees, the doctor should have nothing to do with this side of the business. The local committee, co-operative society, or panchayat should assess and collect all dues, whether for dispensary or home visits or for medicines, giving the doctor whatever is his share of the fee for the home visits. To encourage payment, dispensary tickets are sometimes issued on payment of a nominal sum; it would be better if even this, too, could be done by the local

committee, which is better qualified than the doctor to say who can and who can't pay, and to establish the custom of paying. Sooner or later the doctor is bound to be in trouble if he is expected to demand payment or to withhold treatment from those who refuse. Somehow or other, by co-operative societies, committees, panchayats almoners, or in whatever other way is found best, the public must be trained both to pay according to their means for medicines and treatment and to make full use of the medical services.

(ii) *Curative and preventive.* There are plenty of arguments against combining preventive and curative work. The curative work is popular and will absorb all the time and attention of the staff. No one can do justice to both sides. The doctors will have to serve two masters, the Civil Surgeon and the District Health Officer.

The arguments for it are, however, final. There is not enough money for a double service, and even if rural doctors could be doubled there would still be more than seven miles between their dispensaries !

Something on the following lines seems to be the best line of advance :

Let the rural doctors be given sufficient training in preventive work, not merely to pass examinations, but to give them a conviction of its value and necessity and to enable them to carry it out efficiently. Let the rural doctor have under him a Sanitary Inspector and whatever vaccination staff, gangmen, etc., can be found. Lay down carefully exactly what his duties on the preventive side are to be. Let him do his morning clinic at his dispensary and then on five afternoons a week, let him tour. He will have a certain number of regular village out-clinics at fixed times and places, and for the rest he will tour generally as required

for preventive and curative work. He will have the subordinate preventive staff to carry out inspections, disinfections and do other necessary work under his general guidance. These fixed out-clinics will, in time, we hope, by the efforts of panchayats, co-operative societies and other philanthropic persons or bodies, acquire permanency by the provision of buildings, resident staff such as nurses (male or female) or compounders, equipment and medicines. Subsidized private practitioners will begin to take them over while the central dispensary becomes more of a cottage hospital with outlying feeders. The rural dispensaries, with the help of ambulance lorries, will feed the tahsil hospitals and so on up to the big central institutions. As for supervision, the co-ordination of the two services, curative and health, will have to be so close that in practice if not in theory, both at provincial headquarters and in the district, they will constitute a Health Board issuing joint orders for both branches of their work and loyally backing each other up on their tours of inspection.

By the nature of their work, the chief curative doctor of the district spends most of his time at his headquarters and in his central hospitals, while the chief preventive doctor spends most of his time on tour, but that is no reason why, given loyal co-operation, either branch should suffer in the rural areas.

The family doctor is, and always will be, the best domestic health officer. He has opportunities, denied to every one else, of discovering and correcting defects in nutrition, cleanliness, ventilation, vaccination and all the other elements of good health. Most of our ill-health is the result of very simple causes, dirt, darkness and malnutrition. It does not take a highly trained doctor to see about pits, ventilators, drains and well-tops.

Voluntary social workers (particularly lady workers) can, under the guidance of the doctor, do a very great deal of preventive work. A working mason can help with well-tops, drains and ventilators. A trained agriculturist can help in teaching the growing of protective foods. There is still plenty for the doctor to do, of course ; the detection of communicable diseases, the discovering of causes, and the direction and supervision of the efforts of the lay workers. His curative powers and his general education and culture will help to spread confidence and obtain co-operation in carrying out the simple things that will make so much difference to general health.

Such a combined service based on the rural doctor seems to be the best and cheapest line of attack upon dirt, disease, malnutrition and epidemics in our villages.

(iii) *Health units.* Health units complete with curative, preventive, maternity and welfare services are very valuable for research and training purposes, but as models for general imitation, their cost makes them prohibitive. Instead of planting on the people a full-fledged service which is quite beyond their knowledge and recognized needs, and hoping—contrary to all our experience—that one day they will appreciate it sufficiently to pay for it, it is better to start from the bottom and build up the service as the people feel the need of it sufficiently to be ready to contribute to its cost. For instance, it might start with trained dais followed up with an occasional visit from the lady doctor, leading on to a regular clinic and then a dispensary with a maternity ward, health workers and so on. A close network of panchayats and better living co-operative societies could soon be taught to want and to pay for an increasing number of their social needs and amenities, but not to pay a sum equal, per head, to

the average incidence of the land revenue, for a complete health service, the need for which they had never felt.

(iv) *General*. Ventilate your houses. Have proper chimneys for all fires, as smoke is very bad for eyes.

Milk, fruit and vegetables are the foods to build strong healthy bodies, and with them strong healthy eyes.

So much for the eyes. I have given them several pages and they are worth quite that. Remember ! cleanliness and again cleanliness—chimneys—eye-disease is catching—doctors not quacks—and the quicker you get eyes treated the less chance of permanent harm.

CHAPTER X

WOMEN'S WORK

I. THE HAND THAT ROCKS THE CRADLE

A VERY big effort is being made to improve every aspect and outlook of village life and to give every villager, from the cradle to the grave, a better chance. Practically the whole of our efforts, however, are directed to one-half only of the population of each village, as very little that we do at present has much reference to the women. And yet for our purposes they are the more important half of the population ! It has been estimated in a European country of smallholders—such as the Punjab is in India—that seventy per cent of village life depends on the women. The man is busy with his farm, but upon the woman depends whatever value is got out of the crops and money he brings home for the family.¹ Upon the housewife's knowledge, thrift and skill depends the feeding, clothing, health, comfort and happiness of the home and, greatest of all, upon her capacity for bringing up and training her children depends the whole future of the State.

And yet we continue to neglect her !²

The heartbreaking disappointments that we experience in village work are all due to this fundamental error of thinking that the interest and attention of the women is unnecessary for the organizing of a social and economic

¹ See p. 29.

² Even the parents often neglect their girl babies.

revolution—for the 'uplift' movement is nothing less!—in village life. Better farming, better homes, better business is our motto, but how can a smallholder achieve any of these three ideals if his wife is not joining in as an active and intelligent partner?

How often do we address a meeting of men upon some perfectly obvious reform and curse what we think is their amazing stupidity because they do not immediately agree with our simple suggestions? How can they agree until they have gone home and talked it over with their wives, upon whom in nine cases out of ten will fall the brunt of carrying out the reform we suggest? Custom and tradition are in the hands of the women, and until they agree to changing them the men are helpless. Why should they allow changes until they are educated to realize the necessity for them in the changed circumstances of modern life?

Where does all the school training in hygiene go to? Why is it not reflected in cleaner, healthier towns and villages? Because in the little actions of daily home life children copy their mothers and their grandmothers, not their schoolteachers and scoutmasters! The most important years for training and character-forming are the first six, and the whole of that time is in the mother's sole charge.

Why are dirty towns and dirty villages tolerated? Why is there no civic sense, no public opinion to insist on something being done? Because the women do not know what can or should be done.

In most of the important things in village life, the women are as much concerned as the men, if not more so.

Health and housing are obvious. Consider farming. What is the use of better crops if the housewife does not know how to make the best use of the increased money

and produce which the farmer brings home? A well-trained and thrifty housewife with an old-fashioned farmer for a husband will make a better home than an up-to-date farmer with a wasteful and ignorant housewife. Our whole aim is happier homes—better crops and better everything else are only a means to this great end.

Consider thrift, saving, extravagance, waste, debt, and all that. Until the goodman stops living on a running account at the shop, until his wife stops buying by barter,¹ and until both pay cash for everything and either keep a savings bank account or belong to a co-operative society, the villager will always be wasteful, extravagant and in debt. But how will this ever come about until the housewife holds the purse and keeps the accounts, and how will she ever be fit to do that until she can read and write, and has some training in accounts and housekeeping; until, in fact, the girls go to school and we can have some centre like a Women's Institute in every village, which will radiate light and guidance into the homes of the villagers?

Consider violent crime. It is absurd to suppose that the Punjabi is violent merely because he is virile and martial. There are plenty of virile and martial races in the world whose villagers do not fill the prisons of their native lands. Elsewhere, the peasant is a quiet, God-fearing fellow. Why not in the Punjab? Because the Punjabi is not taught self-control when he is a child, and who else can teach self-control but the mother,² and a mother who has herself been trained? What are dirt, lying and the giving and taking of bribes due to but false notions of izzat, and the absence of self-respect? And who can teach self-respect but the mother? Regular feeding from birth, clean and regular habits, a clean tongue and a truthful tongue, these

¹ See pp. 235, 237.

² See p. 249.

are the foundations of self-control and self-respect, and it is this training that is missing in the Punjab because no one but the mother can give this training and not even she can do it until she has herself been trained, and has been given her proper position in home and village.

One of the greatest problems of boys' elementary education is the way in which they forget all they have learnt when they finally leave school. If their mothers could interest themselves in their sons' studies this would never occur. No one has yet heard of the sons of literate mothers lapsing into illiteracy !

We have tried to show elsewhere that the foundation of all progress is a desire to raise the standard of living.¹ But the standard of living is the standard of the home, and in all countries it is the woman, the housewife or *gharwali*, upon whom the home principally depends. Village uplift is a joint effort of both partners of the home. How can the man alone form and carry out the ambition to improve his home when his wife who is mainly responsible for that home is completely without the inspiration to do so and has no understanding of or share in her husband's ambition ? The desire to rise must come from the home, and the home-keeper must be equally fired with it before we can expect villagers of their own initiative to work and to think, to save and to scrape in order to improve their homes and farms. It is for this reason that it is usually easier to establish domestic reforms which the women understand and appreciate (such as the paving of streets or the improvement of wells), even though they cost more money and bring in no cash return, than to spread the use of good ploughs or to persuade the people to buy good bulls.

Our population is increasing at such a disastrous rate

¹ See pp. 2, 6, 22, 23.

that many people are seriously beginning to wonder if, after all, it would not be better to release again the forces of disease and famine in order to keep the population in check.¹ As noted elsewhere, however, there is a definite connexion between the birth-rate and the standard of living. As the standard of living depends mainly on the women what better reason than this could we have for devoting all our strength and resources to making up for the past neglect of women's education and welfare?

Every year scores of young men are trained for rural work of various kinds, and as one watches them at work before they leave their training institution one is struck by their smartness and their splendid promise. They are full of zeal and knowledge, and determined to put things right wherever they find them wrong. A few years later, one comes across them again at work and one is unable to recognize them for the same people. They have stepped back into the old ways and are content to pass their time in a dull routine imitation of what they learnt at their training school. I feel certain that one great cause of this disastrous change is that no man can live permanently ahead of his home. Whatever he has learnt or whatever progress he has made, he must in the end come back to the standard of his home, and the standard of his home is that of his wife. No soldier can fight in front and behind him at the same time, and the trained worker cannot hope to uplift his home as well as his neighbourhood to the standards he has so recently acquired. Unless he can gather inspiration from his home for his daily struggle, sooner or later he is bound to slip back to the old level. It is essential, therefore, that opportunities should be made for workers to obtain training for their womenfolk so that, when they

¹ See pp. 22, 25.

go forth on their crusade, their own homes may be shining examples of the new life they are trying to teach and they may merely be spreading the atmosphere of their own homes and not trying to teach exotic doctrines of which they have no personal experience.

In all living species the welfare of her young and her home is an instinct of the female, and the human species is no exception. With the male it is less an instinct than an acquired virtue. All money, therefore, spent on women's work will bring in a far quicker and greater return than money spent on men's work, as obviously the exploitation of a natural instinct is a far easier business than the inculcation of a difficult virtue.

The progress of a country is the progress of its women, and the foundations of rural reconstruction are girls' education, Women's Institutes and women's welfare work of all kinds.¹ This much can be stated without fear of argument or contradiction. When, however, we come to the details of the actual work to be done, we are at once in difficulties. Books can be written about the men's side of rural reconstruction, but so little has been done for the women that there is very little to say.

II. EDUCATION OF GIRLS

The Hartog Report said that in every scheme of extension priority should be given to girls' education, and let us now hope that the unique and costly experiment of trying to uplift and civilize a nation without educating the women is at last to be abandoned.²

Whatever higher education³ is given to the select few, the rank and file in village and town alike want, in addition to their reading, writing and arithmetic, some physical

¹ See p. 284 (16).

² See pp. 109, 277 (7), 284 (15).

training, general culture and a strong element of domestic work. Domestic training should include cooking and food values, making and mending clothes, housework of all kinds, house accounts, domestic hygiene, the simple facts of the common diseases and epidemics and the means of avoiding them—what harm is done by rats, fleas, flies, mosquitoes, etc.—the use of a few simple medicines, infant training and welfare, and children's games.

Few people in the Punjab seem to be aware of the special needs of children with regard to food, sleep, recreation, etc. This is not because the parents have no affection for their children, but because it has not occurred to them that special consideration in these matters is something children have a right to expect. The mother is the only person competent to think these questions out. The matter will, therefore, not receive proper attention until the women are educated.

There is a rather general complaint that the higher education now given to girls spoils them for the drudgery of home life, and they refuse to help in the house when they return from school or college.¹ Instead of studying the domestic arts and sciences, the girls, in their struggle for 'equality' with the men, prefer to learn what their brothers learn and neglect to make themselves expert in their own peculiar subjects. In this way the lucky girls who get a higher education, instead of being pioneers of women's welfare work and spreading the demand for girls' education by proving that the educated girl is a better wife and home-maker, utilize their education to escape from their responsibilities and do not even bring up their own children.

¹ The danger is inherent in all education. How is education to be given without losing the old-fashioned virtues so staunchly maintained among primitive folk?

It is even alleged that they are backed up in this by their mothers, who encourage them to escape the drudgery which fell to their own lot.

The educated young man is also blamed for insisting that his wife should be a B.A. rather than an expert in running a home. If all this is true, the remedy is obvious : that the educational authorities should make it impossible for any girl to emerge successfully from high school or college without a thorough grounding in what is bound in most cases to be her life-work. ' Home Science ', instead of as now being rather looked down upon and in some ways a handicap for further scholastic studies, should be a popular and valuable subject for every examination and every stage of education, for the middle school examination, for the matriculation, F.A., B.A., B.T. and M.A. A good diploma course, lasting at least nine months, is wanted after the matriculation examination for those who do not proceed to the university. Home Science must bring as much credit and honour to the girl student as any other course and the young men must be taught to appreciate and to demand a good standard of housekeeping ! As far as possible, domestic work should be taught as a routine of daily life rather than as a scientific subject.

There is yet another possible source of opposition to higher education for girls. It is feared that it will mean more competition still for the few available jobs for the men. Will it ? Considering that in the Punjab at any rate there are definitely fewer women than men and that, say what people will, the average girl prefers and probably will always prefer running a home to working in an office, and considering that the women of the Punjab have hardly yet begun to go into the exclusively female professions such as nursing and the teaching of small children, it should not be

difficult to get them in their own best interests not to jeopardize the future of girls' higher education by jostling with their brothers for men's work while their own professions are still understaffed.

The medical inspection and after-care of schoolgirls is even more necessary than that of schoolboys. It is a common scandal that the buildings of girls' schools, particularly in towns, are dark and damp, small and overcrowded, without arrangements for water, sanitation or games, and with miserably inadequate equipment. The parents can easily put this right and in their own interests they should do so.

The education of village girls is a great problem. No country in the world can afford two schools in each village, to say nothing of the difficulties of inspection and staff, and yet the villagers are loath to send the little girls to school with their brothers. Village parents would send their girls quickly enough to a mixed school if the teachers were female, but where are they to be got? The villager does not welcome female teachers from the towns—their customs, habits, culture, language are all different—while there are few village girls coming up for training as teachers. And there is no 'custom' yet for women to teach boys in an open school. Finally it is not easy for a solitary female teacher from outside to lodge in a village. These are but some of the difficulties!

Difficulties, however, were made to be overcome, and if this problem is attacked from all sides at once, it will soon be solved. Where parents are ready to send their little girls to school with their little brothers they must be encouraged to do so. The parents are the best judges of these things, and wherever and to whatever age they allow it, there must be no obstacles from the official side.

Teachers in whose schools girls are found are obviously better than those who do not inspire such confidence in the parents, and they must be rewarded accordingly. Wherever mixed schools with entirely female teaching staff are possible, they must be encouraged. The boys in these schools are turned out after the primary classes and the girls continue for the middle classes. Male teachers must be encouraged to enlist their female relations as assistant teachers in their own schools. Whatever their qualifications, these assistants can at least come in for an hour or two a day and look to the welfare of the little girls, possibly teach simple sewing or knitting or some other domestic work, organize games for them, and inspire the parents with confidence to send their girls with their boys to the village school.¹

Short training courses² must be organized in the districts for teachers' wives so that they may acquire whatever knowledge they can to enable them to be useful in their village schools.

Men's Normal Schools must have separate sections where students' wives can get domestic training.

Normal Schools for female teachers³ must be established in rural surroundings, and there must be domestic courses for the teachers of rural girls' schools.

The Girl Guide movement is as valuable for girls as the Scout movement is for boys. It is beginning to spread to the villages and adds a wonderful opportunity for happiness, health and service to the dull routine of our starved and neglected girls' schools. Here, however, as in all other welfare work for village women, the principal obstacles are

¹ See p. 288 (6).

² These were run for some years in Gurgaon and are now being restarted in several places in the Punjab.

³ These are also being started in the Punjab.

the absence of money and of an organized welfare service to support and encourage the workers in the innumerable difficulties of village work and touring.¹

III. TRAINED WORKERS AND HOME-MAKING INSTITUTES

So much for the young. The grown-ups must also be attended to.

Trained women of all kinds are very rare, they are very hard to locate in villages, their touring is extremely difficult. They marry and are lost to us or they require long periods of leave for domestic purposes. For one good reason or another they cost far more, for the work they do, than male employees. Their supervision and the co-ordination of the workers of various departments is another problem. Their supervisors and co-ordinators are often men, sometimes honorary lady social workers or committees, rarely stipendiary women workers. Women should, of course, be supervised by women, but when this is impossible, the most senior possible male official should be put in charge. Men expected to supervise or to organize women's work are advised to fortify themselves with a committee of local ladies to advise and assist them.

In view of the extreme difficulty of getting rural female workers, it is suggested that the best line of advance is by means of the married worker. The best way of improving village life is to have living examples of better homes in as many villages as possible. Every villager or rural worker, therefore, whose wife has been properly trained, is a light shining in the darkness, a centre of culture and knowledge.

The first thing, therefore, is home-making institutes²

¹ See pp. 142-5.

² Already opened by Mrs Sam Higginbottom at the Agricultural Institute, Allahabad.

where women can learn, as a daily routine rather than as a science, all that we want the village housewife to know of hygiene, diet, cooking, making and mending clothes, household accounts, child training and psychology and everything else that goes to the running of a good home. To these homes must be encouraged to go the wives and daughters of our rural leaders and all who are, or are going to be, the wives of rural workers. If preference in all rural appointments—perhaps even enhanced pay—were given to those whose wives had been trained in social work, we might soon have a large number of village homes of the new type for the people to see and copy.

Until a sufficient number of satisfactory stipendiary female workers are available, why not give honoraria to these trained wives of male workers for work actually done? If a co-operative employee's wife organizes women's co-operative societies, if a doctor's wife helps in her husband's dispensary or organizes a women's institute, if a schoolmaster's or a patwari's wife or the wife of any other rural worker helps in any way, let her receive a reward in proportion to the work done. Whatever work was done would be paid for and there would be no question of touring, maternity leave or any other difficulty. This is not an ideal arrangement but it would be cheaper and more satisfactory, or at least less unsatisfactory, than much of the work now done, and the home-making institutes would at any rate do much to spread light and culture in the villages.

IV. WOMEN'S INSTITUTES

Some kind of Women's Institute or Association is required in every village.

A full-blown Women's Institute is an elaborate thing, but its essence is simple. It has :

(i) *Paying membership.* The payment may be very small, but the element of payment must be introduced into our village women's societies at the very earliest moment, as the paying of money is a great tonic ; it creates independence and self-respect and increases enthusiasm : where people's money is, there is their heart !^x

(ii) *Office-bearers.* Bring these in early too ; they add dignity and consequence to the proceedings.

(iii) *A triple programme.*

(a) Social : the members organizing little parties.

(b) Recreational: folk-dancing, indoor or outdoor games, glee-singing, playlets, etc. Something of this kind would be very popular in our villages.

(c) Cultural : talks about some subject of general or of domestic interest, a new way of cooking some simple dish, or a better way of making a baby's vest.

We shall not get all this in our villages for a long time—perhaps never—but any sort of organization, however simple, will be of immense value. If only the women can be collected at intervals and given a little instruction and their interest aroused in the possibilities of improvement, all our work will be far easier than it is now. The trouble is to find trained workers capable of making a start, and we must begin with what we can find.

Every female teacher, health visitor, nurse, lady doctor, and the wife of every schoolteacher and other rural worker must be encouraged—and paid something for her trouble if she so desires—to make herself a centre of light and culture in her village. If she will only collect a few village women once a week or once a fortnight and teach them whatever she can of sewing, knitting, child welfare, or read aloud something useful and interesting, a beginning will have been

^x See p. 18.

made which in time can be developed into a centre from which knowledge can be radiated into the village homes. The women are eager enough to learn ; the only problem is to find teachers. There is plenty of stuff to read aloud and discuss—a chapter of *Socrates in an Indian Village*,¹ a page of the district newspaper, or some of the many printed leaflets issued—and once this begins, more and better stuff will soon be written.

Let all those ladies who have the advantage of education, culture, wealth or leisure join in and help. They can help by visiting the struggling village worker to encourage and advise her, and by themselves joining in the weekly meeting when they happen to be within reach. They can visit girls' schools, cheer up the lonely teacher, and brighten the day for the little girls. They can help by forming themselves into a district committee to organize and encourage women's village societies, to provide literature, flower-seeds,² pictures, material and money for them, to advise Government and local bodies in all matters of female and infant welfare work and to help in organizing it. Women's work can only be done by women and only women can say what ought to be done.

Co-operation can help here. If village men require co-operative organization, much more so do village women, to provide their wants, to bring them knowledge and skilled assistance, and to enable them to voice their needs. There is no reason why the Women's Institute or Association should not be a registered co-operative society—and there is every reason why it should be, as this will mean permanence, and skilled and sympathetic assistance and supervision. The female co-operative staff should, of

¹ See also *Socrates Persists in India* and *Socrates at School*.

² See p. 53.



THE VILLAGE PANCHAYAT

Note the village newspaper. Their next job must be to put ventilators into the houses behind! [See p. 157]



CO-EDUCATION

Note the sewing-machine

[See p. 135]

course, be trained¹ in the simple elements of hygiene, welfare work and home crafts so that whatever kind of female society is formed, they may be able to help housewives and mothers in every way possible.

The panchayat,² or whatever other organization there is in the village, should be interested in women's welfare work. With their authority and influence they should be able to compel the dais to go for training and if necessary to find the small sums of money required for the purpose. They should be able to stop untrained dais from practising and to insist on the trained dais maintaining the new standards and not lapsing into their old dirty ways. The village panchayat should be of great use in helping to get village girls trained as teachers and in finding homes for, and making life possible for, outside girls who come to teach. In fact the panchayat should insist on welfare work being done, and should find ways and means for it, and make things easy for any welfare workers who visit or reside in the village.

In all programmes of rural work special attention should be paid to home amenities—chimneys, hayboxes, street paving, etc.—so that the women's attention may be attracted. If we can convince them that we want, and are able, to help in making things easier and better for the home-keeper, they will be more likely to help in those parts of the programme which are less obviously and immediately beneficial.

V. A WELFARE SERVICE

The men have complete services for their needs, whole-time salaried officials in every district and division, and at provincial headquarters, to co-ordinate and control their activities.

¹ This is being done in the Punjab.

² See p. 157.

Throughout the province there are a few lady doctors—practically none in the villages—and with only one lady doctor for the whole province to supervise and help them. There are a few health visitors—with a touring supervisor—a skeleton education service and a still more meagre women's co-operative staff. And no one to co-ordinate, to encourage and support them except here and there the public-spirited wife of an official !

Can it for a moment be supposed that the women are in less need of help or that the traditional methods of running a home and bringing up children are not capable of just as much improvement as the traditional methods of farming or of animal husbandry ?

Instinct is not a complete guide for the bringing up of children in a civilized environment, particularly when civilization often includes overcrowding, insanitation, and malnutrition.

The difficulties of the village housekeeper are greatly increased by her menfolk's failure to keep the village clean, to produce crops which will enable her to give her family a balanced diet, and to devote their whole time and attention to the improvement of the village. Is this any reason for helping the men to mend their ways and giving no thought to the troubles and sufferings of the women ?

The women's side of rural reconstruction is even more important than the men's and the time is past when this vital work can be left solely to the philanthropic efforts of part-time volunteers. District Officers' wives do what they can, but not every officer has a wife and not every wife has the leisure, training or inclination to do steady continuous welfare work. Nor indeed is it fair to ask them to. The philanthropic volunteer's proper work is not to do the day-to-day work of a welfare service. Her job is to back

up the trained worker and to give whatever help her other duties allow her to.

So haphazard is the organization of social work that even the volunteer cannot be made proper use of as there is no organization into which she can be fitted and any one who wishes to help has to work on her own instead of being able to enlist herself in an organized team, where she can learn the work and make full use of whatever time she can spare for helping her fellow women.

Social work is a whole-time task demanding trained workers capable of working year in and year out in the same place. Salaried workers are therefore essential and once they are established, it will be possible to enlist, and to train and to make the fullest use of voluntary workers. One often hears complaints at the absence of a spirit of social service. Once there is a nucleus of trained whole-time workers and an organization, if then voluntary effort is not forthcoming it will be time to complain. Till then voluntary effort is almost helpless.

Nor can this work be left to existing departmental staff. They are already far too few for their ever increasing duties, and their difficulties are infinite. No, this is new work and requires a new service. Until recently the men's work was in water-tight compartments. What women's work there is, is still so, and must remain so until a co-ordinating agency is created so that every institution and every worker can join together in the great task of teaching the art of home-making which is the whole end of rural reconstruction.

The first essential therefore for progress in women's welfare work is the immediate appointment of trained and qualified whole-time salaried female social workers.

Their duties would be :

(i) to survey the province and study the work already going on so that they could advise Government and districts alike upon future plans,

(ii) to co-ordinate existing work and workers,

(iii) to encourage and to organize voluntary effort,

(iv) and to assist wherever possible in establishing women's village societies, and

(v) to organize district committees, and in time a provincial committee, both to develop and expand the work and to enable Government and public at last to hear what the women themselves think about the problems of their own welfare. It is suggested that a beginning should be made with one or two workers. They would awaken the public, men and women alike, to the importance of this subject and their work would lead immediately to the appointment of whole-time workers wherever work had reached the stage when voluntary effort could not keep pace with it, until the province had a complete welfare service.

VI. HEALTH AND MEDICAL WORK

The three important things are :

(i) Medical aid.

(ii) Training and supervising dais.

(iii) Spreading knowledge of simple hygiene and infant welfare, and bringing practical help to village mothers and housewives.

The second and third are done by health visitors, but as women's associations start, and the wives of landlords and other rural leaders and officials begin to tackle their social duties as they should, much of the third will be done by them.

1. Difficulties. The first difficulty is the absence of sufficient money to bring medical skill within the reach of

every village home. It is not yet realized that, whereas a healthy male can go the whole of his life without any other skilled attention than that of the vaccinator and an occasional inoculation, the healthiest female in the world during her child-bearing age urgently requires skilled attention, and if she does not get it she may die or be crippled for life.

And yet in this matter, as in education and everything else, the men got there first and laid hands upon all the money, and during a time of low prices it is a difficult job to find money for the even more urgent work of finding doctors and health workers for the women. In the end it will probably be found necessary—by statute or however else such a thing can be done—to lay it down definitely and positively that, whatever the needs of the men, a certain annually increasing percentage of all the funds of Government and local bodies set aside for education, health, medicine and general welfare shall be devoted to the needs of the women. Public opinion is, however, not yet quite ready for such a move, although it probably soon will be, sooner perhaps than we are apt to think.

Once the women, through their village societies and district committees, begin to be more articulate, more money will be found for their special needs, but what the eye doesn't see the heart doesn't grieve over, and few people realize the appalling suffering silently endured by the village mother. A law has been passed to bring a trained practitioner within the reach of every mother in England. There are a million babies born every year in the Punjab. How many of them or of their mothers receive any skilled attention? Statistics say that in India one woman in ten dies in childbirth. No wonder! The result of this failure to provide the women with a fair share of the available

funds is that much official and non-official effort has to be devoted to trying to squeeze and scrape money from here, there and everywhere and to trying to work without money. This effort is all to the good as far too few people yet realize and shoulder their duties to society; but how much better would it be if these efforts could be devoted to the work itself instead of to finding the wherewithal to do any work at all.

The second big difficulty is to plant in a village—with no society or other amenities—a young unattached female, often of a different class, upbringing, traditions and religion to anyone else in the village.

The ideal arrangement is that our female rural worker, whether medical or otherwise, should be the wife of someone actually resident or employed in a village. If her husband is a doctor, veterinary surgeon, dispenser, schoolmaster, or agricultural expert, then regardless of red tape and the 'general post' of periodical transfers, let them go to a village and be given sufficient inducement to stay there. Time will doubtless put all this right, particularly when there are well-established village councils and women's organizations to look after such matters, but this is no reason for not doing all in our power to get female workers into the villages.

2. Doctors. There are practically no female doctors in villages and no money to provide them.¹ Even the central and tahsil hospitals have not all yet got female doctors, and this defect should be immediately rectified at whatever sacrifice necessary of medical services for males.

If it is not possible to have a female doctor in addition to the male doctor at our rural dispensaries, then it is high time that some of the male doctors were replaced by female

¹ See p. 119.

doctors, and certainly no new rural dispensary should now be opened except with a female doctor in charge. Meanwhile some kind of female attendant must be attached to our rural dispensaries, whether as compounder, nurse-compounder, nurse-dai, nurse, or dai, to assist the female patients in describing their symptoms and in general to inspire confidence and to give what help they can. Country doctors in England do much of their own dispensing. Could not money be saved in this way in the Punjab and spent on providing a female attendant? It is said that the presence of a male compounder is necessary to deputize for the doctor when he is away, often for the purpose of giving evidence in medico-legal cases: but need rural doctors touch medico-legal work? In any case the presence of an unqualified male deputy, while the doctor is away, is infinitely less valuable than the daily services of an attendant for the female half of the population.

3. Health visitors and midwives. The training of dais is as important as the training of patwaris and should be done as thoroughly and as systematically. At present it is left largely to semi-official and unofficial effort and philanthropy, which does what it can, but will not cover the whole area in any period we can foresee.

Dai-training presents difficulties. Doctors have a tradition of demanding fees and are therefore difficult to use for training dais and supervising maternity work in scattered villages. Health visitors can do this excellently, and their traditions are of helpful service, unhindered by the question of fees. But they cost nearly as much as doctors and, although they can give a lot of help and can prevent a lot of disease and suffering, they are not qualified to tackle serious cases (whether maternity or other) demanding positive treatment. Moreover their best work is done in

a small area where, by continuous residence and personal influence and sympathy, they build up an atmosphere of friendliness and confidence. At present they have to be posted in a rural centre for just long enough to train the local dais, and then they are moved on to another centre, leaving the dais to their own devices, without much in the way of effective supervision, and losing the value of all the personal contacts they have established by their months of house-to-house visiting. Meanwhile, until the trained dais are sufficiently numerous to combine and boycott the untrained, the two practise side by side, and as the usual fee is a rupee^{*} for a boy and eight annas for a girl (is it the poor dai's fault that girls are born ?) the only inducement to undergo training is the few annas given for each lecture attended.

Yet another difficulty in dai-training is the fact that few maternity cases come to hospital at all or are even reported to the doctors, so that adequate maternity practice can only be had in the people's homes, and by pupils of the old-fashioned dais.

It is common for families to be served by family dais generation after generation, so that even when there is a trained dai available, it is very difficult to break the age-old family connexion and call her in. All this will solve itself when there are district ladies' committees, village women's societies and village administrative panchayats and committees. It will then be possible and easy to create a public opinion in favour of using trained dais in preference to untrained, and of paying them properly for their services. Family dais will soon come into line

^{*} The licence fee however for a trained dai on registration is as much as Rs. 3 : and untrained dais cannot be compelled to give up practising.

and get trained when they find that skill and not custom is the way to employment.

Something is urgently required—refresher courses are valuable but not an adequate substitute—by way of following up and supervising and helping the trained dais in their work after the health visitor has moved on to her next rural centre. It is also most necessary that there should be a female doctor available—in course of time, male doctors will, we hope, be acceptable but that time has not yet arrived—to deal with abnormal and difficult cases reported by the dais. At present the dais are bound to tackle these cases themselves and though they undoubtedly do much good work this is far from being an ideal arrangement.

As for female doctors and health visitors, I doubt if the last word has been said. Could we not have something that combines the advantages of both and avoids the difficulties? For the homely touch and simple preventive work—house-to-house visiting, teaching cleanliness and so on¹—a less highly qualified, and far less expensive worker would suffice, while for the technical work both of doctor and health visitor, some kind of worker, who has the medical training but is without any tradition of fees,² is required.

It is not right that the maternity service of rural women should be held up permanently on the fee question.³ But

¹ Much of this work will in time be done by the wives and daughters of the rural gentry, leaders, and workers—as is done in other countries.

² See pp. 18, 122-3.

³ A further complication of the fee question is the unfortunate fact that although villagers will die rather than pay eight annas for a home visit from the doctor, the moment the doctor was bound to visit them without a fee, there would at once be complaints if he did not spend half his time in their homes! Such is human nature.

this, like all the other problems,¹ will only be solved when women's work is organized by women, and money is found for the purpose; and when educated women—the wives and daughters of landowners and others living or employed in rural areas—begin to interest themselves in social work in the way their sisters are doing in other countries.

4. Conclusion. As I pointed out before, so little has yet been done in the sphere of women's welfare work that it is impossible to say exactly what shape its organization should take, but every way of developing and expanding the work must be tried out till experience teaches us the best machinery and methods. The first essential, however, is MONEY, and the second, WHOLE-TIME QUALIFIED FEMALE WORKERS, and ORGANIZATION. Women's work more than any other requires organization and co-ordination. There are infinite difficulties in the way of both resident and touring female workers, and they can only work with freedom and confidence if they receive support and encouragement, and are well looked after and supervised and co-ordinated by workers of their own sex. Departmentalism and watertight compartments are utterly fatal to women's work, and it is impossible for district workers to depend solely on chiefs resident at provincial headquarters. Every district must have its local organization and supervision, to which every female worker of every department and agency may look for support, guidance and, if necessary, correction.

¹ A very urgent social reform is the universal registration of marriage. Marriage is the most important contract in the world and yet it need not be recorded or registered! It is a cruel injustice to the women that this should be so.

CHAPTER XI

VILLAGE ORGANIZATION

1. **The problem.** There are a hundred and one things to be done to make the village a happy, healthy, comfortable place to live in, and every one must do his or her best ; but almost all the important things have got to be done by people working together rather than by people working singly, each on his or her own account. The big things to be done are everybody's job, and that means nobody's job until there is someone to tell everybody what to do and how and when to do it and to see that they do actually do it. In a village owned by a single man it is easy for the landlord or his agent to organize this. But elsewhere how is it to be done ? Most people are willing to work if other people will too, but few people like to do the common work of the village unless their neighbours join in and do their share, and still fewer people like to keep on doing the dull but necessary chores of a properly organized community existence. How are the roads to be widened and raised and drained and mended, and then kept in good order ? Who is to repair the drinking wells and keep them repaired ? How are the streets to be kept clean and how are they to be paved and drained ? Who is to keep the people up to the mark when they forget to kill their rats, or to keep their premises clean, or to put up ventilators ? When someone's wall is dangerous to passers-by, or a tree falls across the road, who is to see about it ? One person's carelessness may destroy the comfort, or risk the health of the whole

village, and yet there is no one to attend to it. Where are initiative and continuity to come from?

The improvement of grazing grounds, the prevention of the denudation of hillsides,¹ and the growing of grass, timber and firewood on all waste places, village common lands and roadsides will bring immense benefit to the village, but this work can only be done by some well-established administrative authority in the village.

The village is a terribly dull spot. Even a riot or a dog-fight is a welcome diversion, and once a boy gets a glimpse of the interesting world outside from his books at school, he wants to run away to the town and to leave his village for ever. The villager is apathetic and his mind inactive, because he never gets anything new to think or talk about. This is all wrong. Every villager should play games occasionally and should hear the news and keep in touch with the outside world. He also needs a bit of entertainment in the evenings just to keep his mind and body fresh and prevent his brain from atrophying. But there is no one to see about these things, no one to collect the money for a newspaper, a reading room or a wireless set, and no one to organize a games club.

Every good villager, if he knew about it and knew how to, would gladly support the Red Cross and the Boy Scouts and would like to help a nursing and medical association or subscribe for a weekly visit by a doctor, so that he might get attention for himself, and particularly for his wife and children, when need arises. But there is no one to organize all this.

Finally the village is inarticulate. It cannot express its opinion or say what it wants, or what it thinks should be done.

¹ See chap. vii, and pp. 56, 157, 176-7.

And then what about the many little causes of irritation and quarrelling that must arise in our crowded villages? Who is to settle them before they become big feuds in which the whole village takes sides and wastes all its energies and resources in faction and litigation?

Everybody looks at his neighbour and says, 'If you will do your share I will do mine.' And nothing is done! What is the remedy?

2. The solution. The solution is organization. If we want to improve the village and to make life worth living there, we must organize the villagers to think, plan, work and pay for their own necessities and amenities.

There can be no permanent or spontaneous improvement in village life until there is some organization working inside the village itself to keep the villagers up to the mark, and to get all the many things done that must be done to make the village worth living in.

Touring Government officials can and do come in and organize a great clean-up every now and then, but they cannot keep every village clean from day to day and week to week. Government can advise, inspire and teach, but the actual daily work must be done by the villagers themselves.¹ No outsider can organize them so that everybody does his proper share—working or paying—and no one can say exactly what must be done, and how and when it should be done, except a body of people resident in the village itself, selected by the villagers themselves from among themselves, and inspiring confidence by their fairness, common sense, and keenness.

There is no country in the world, in which civilization has spread into the village, where the village has not a local resident organization to administer it, and there is no reason

¹ See pp. 17, 18.

to suppose either that the Punjab village can be put right in any other way or that the Punjab village is incapable of being organized in this way. This administrative body can be called a Parish Council, a panchayat or a co-operative society, but its main principles and its functions, are much the same. It belongs to the villagers who join it or elect it, and it raises money, organizes and directs the service of the villagers for the improvement of home and village life.

3. Compulsion or self-government. There is no Public Health Act in the Punjab and it is generally believed that no law exists by which people can be compelled to be sanitary and to adopt such habits as will ensure clean, healthy homes and villages, to take such action as will prevent the spread of pests and diseases among crops, cattle or human beings, and generally to behave as good citizens. This is incorrect as the Municipal, the District Boards and the Panchayat Acts, if only they were made full use of, contain a framework ample for the purpose of developing and enforcing good citizenship. The trouble is that there is no public opinion behind them and without a strong public opinion to condemn anti-social actions and the neglect of duties of good citizenship, no amount of laws will make either town or country fit to live in.

Village Uplift is at present being done by official persuasion and the vigour with which this is applied makes the pressure vary from mere pious advice almost to actual compulsion. The defects of this method are many.

(i) It is impermanent.

(ii) It is inefficient and confines the work to the most elementary beginnings. Instead of being able to go on to new things and to continue the general advance to a better village life, the persuaders have to exhaust their

efforts in trying to cajole the small but obstinate minority which always lags behind the rest of the community.

(iii) It spares the lazy, the obstructive and the bad citizen, who is holding back the village, and is the very person whom it is most important to tackle.

(iv) It is unfair to the workers as they are expected to achieve results quite beyond the warrant of their legal authority.

It is often suggested, particularly by the village officers and leaders who are expected to carry out the rural programme under the present system, that legalized executive authority should be invoked for the simplest, most important and best understood items. Most villagers are ready to do the right thing if their neighbours will also do it and most villagers are ready to do as they are told. At first, at any rate, this might lead to immediate and marked improvement in our villages and would be very welcome to many harassed officials now expected to make bricks without straw.

There are two objections to this policy : (i) it would not lead to the development of self-governing institutions which Government desires to see spreading in the villages ; (ii) it would require an army of officials to see to the carrying out of the new laws, as a law that is not obeyed is worse than no law at all.

But do we want official interference in every home ? I doubt if the Punjabi would really like to be regimented in all the details of his daily life, in home, field and village, by a horde of petty officials. He is often bitter enough about the few there are now ! The time for laws and compulsion will come when ninety per cent of the people are living and farming in a reasonable commonsense manner but are frustrated by a ten per cent minority of stupid, idle or

obstinate people whose resistance to better ways endangers the health and prosperity of the general mass of the people.

The alternative to both persuasion and dictatorship is that the people themselves should be organized to administer their local areas and make them fit to live in. The process will be slow and there will be nothing spectacular about it but any progress achieved and any civic sense developed by this method will at least be permanent.

VILLAGE ORGANIZATIONS

The following are the forms of village organizations so far devised in the Punjab. There is room for them all, and one or other or all of them is absolutely essential for the development of the Rural Reconstruction movement. They should all be tried, and whichever succeeds and proves itself the best suited to the circumstances of each village should be continued and developed.

1. **The Panchayat.** This is obviously the best administrative council for a village because it is a statutory body with a law framed to suit the exact conditions in which it has to work. In the Punjab, so far, the panchayat has almost everywhere failed to administer its village. The reasons for this are lack of supervision, and the fact that even where there was supervision, the supervisors themselves rarely knew much about village administration or attempted to train the *panches*¹ in it. Moreover the panchayats were used primarily as judicial not administrative bodies, and instead of establishing them in small homogeneous villages, with as few factions and parties as possible, they were put into big unwieldy villages where leadership and cohesion had long since disappeared and party factions were rife.

¹ Members of the panchayat.

This has now been altered. Panchayat officers have been trained in village administration and rural reconstruction, and are setting out to establish panchayats in carefully selected, small, homogeneous villages where there are still natural leaders leading their people, and where the 'better village' movement is a live issue. Judicial functions will be a minor affair—who wants a law court in every village once there is a trusted body of elders ready to keep the people together and give them a practical lead towards a better and brighter village life? One would have thought that one judicial panchayat in each zail would be enough for all the legal work.

Another difficulty of judicial panchayats is that they are chosen by election, and election is not usually regarded as the ideal means of selecting judicial officers. At present, however, it is considered best to give them judicial powers as an incentive to undertake the less popular task of administration. But as their administrative skill and experience increases and the villagers learn to trust them and to appreciate well-ordered village life, their administrative powers will come to be held far more valuable and important than their judicial.

In several of the Indian States statutory panchayats have been established in every village, and in the Punjab it might be worth trying to spread the panchayat habit by setting up a panchayat in every village of several selected zails. When panchayats are set up only in selected villages, the danger to avoid is setting up numerous mushroom panchayats for the sake of showing results. As in forming a co-operative society, so in setting up a panchayat, a definite need must be found and the panchayat established to meet that need. If the panchayat can make good by solving the problem it was set up to solve it may be able to establish

itself as the administrative organization of the village. It is unlikely that a panchayat set up for little better purpose than to please the organizer will ever do much good.

The universal rule in village work is that all villagers should either work or pay for the essential services of the village,¹ but until the panchayat has found its feet and gained the confidence of the people it will be wise not to say or do much about raising money for general purposes, although for special needs, such as the paving of streets, people might quickly be persuaded to pay money by a panchayat they trusted. There are several very ancient community funds such as the *malba* and *dharat*, and there is, or was until divided up, the *shamilat* land; but it will probably be a long time before the people will allow the panchayat to lay hands on these. Service, particularly if the *panches* set the example of working themselves, will be easy to commandeer, and this book shows that there is plenty of simple and useful work to start upon that will not involve the panchayat in the difficulties and complications connected with the raising and spending of money. There is no doubt that money too will come in due course, if the *panches* are honest and impartial, because the Punjab villager has shown again and again that, when properly led, he is ready to do anything and everything necessary to improve village life.

It is often said that panchayats are impossible owing to the factions and parties in the village. It is the very absence of a local resident authority to settle disputes and nip feuds in the bud that has caused all these factions to arise and spread. In the old days, when the lambardars were real headmen and there was some authority in the village that every one acknowledged, there was less talk

¹ See pp. 17-18.

of factions and fueds. We have now got to re-establish order, peace and authority in the village by means of the panchayat.

If necessary the Panchayat Act must be altered until it suits village conditions, but if ever we want to see a happy countryside, at all costs and with whatever trials and experiments that may be necessary, Village Councils must be established. And they must not be left to the tender mercies of overworked officials in their spare time nor must they be left to look after themselves but they must be properly supervised by a very carefully selected and thoroughly trained staff appointed for this purpose and this purpose only.

2. **The co-operative society.** The second kind of council is the co-operative society. This is also governed by law, the Co-operative Societies Act. Co-operative societies can be organized to provide every kind of service and meet every need. They are dealt with in Chapter XII. They have a paying membership and are a close society. Until every villager joins it, therefore, the society cannot speak or act for the whole village or organize services for the whole village. Moreover, although they have a law which sees to their proper organization, audit, inspection and supervision, they have no law like the Panchayat Act to enable them to administer a village. If all the villagers were members, their committee could perhaps be gazetted as a panchayat, but in actual practice their functions are rather different, and each society is organized to do one particular work, such as credit, or cattle improvement. At the same time the presence of a respected and representative body of men like the committee of a good co-operative society is invaluable in any village, and until a good panchayat can be developed the co-operative society will

unofficially do much of the work of a panchayat in organizing village services and in settling disputes.¹

A possible combination of the two would perhaps be to continue the committee of a Co-operative Consolidation of Holdings Society as the nucleus of a statutory panchayat for its village, after the conclusion of its consolidation work, so that the cohesive spirit and the experience gained in the difficult task of re-dividing all the land might be preserved for the day to day administration of the village.

3. Sanitary committees. These are set up by District Boards under special by-laws, and supervised by the District Medical Officer of Health and his staff. The by-laws are still the subject of discussion, as the best method of working has not yet been evolved. It is likely that if good panchayats can be organized these sanitary committees will disappear, as the panchayat, if only it will work properly, is obviously the best possible form of village organization.

4. Other bodies. Apart from these three kinds of bodies, with laws to support them, various societies, committees, and associations are organized from time to time in many villages to carry out various duties and to provide various services. They have no law behind them, and are apt to prosper and to fade away as officers come and go or enthusiasm waxes and wanes among individual rural leaders. Anyway, they serve a good purpose while they last and, like the others, help to teach the villagers both the necessity for, and the principles and practice of, self-government, and they help to pave the way for the regular bodies described above.

The danger of these informal societies is that the very informality which is the reason for their existence is apt to

¹ Particularly of course the Co-operative Arbitration Society.

be the cause of their ineffectiveness. People who are unwilling to make the small sacrifice and to undergo the small self-discipline necessary for the formation of a co-operative society are unlikely to welcome the hardship and self-denial involved in climbing the steep hill of progress.

Instances of these associations are the health committees of the Public Health Department, education committees, games clubs, and parents' associations started by the Department of Public Instruction, and the farmers' associations established by the Agricultural Department. These last start with a few keen farmers who agree to sow certain improved crops or to try out certain improved methods and implements or to devote some of their land to a demonstration farm to be worked according to the instructions of the departmental expert who visits them from time to time. A book or file is kept by the association, where visitors record the progress and results of the work. As the association gains strength it undertakes more and more of the various branches of rural reconstruction.

These associations should be, and sometimes are, combined in Tahsil Federations meeting regularly to discuss their common difficulties and problems, to compare results and to receive information and advice. Fees for membership of the village societies and affiliation fees for the federations are not usually charged. A paying membership, however, means *pakka* members and a little money for correspondence, for issuing notices or for sending short notes to the members about new and useful things, and for collecting a few books, journals and other necessities of modern progressive activity. People take much more pride in things they have paid for than in what they get

free.¹ The paying of fees and subscriptions, however small, is a most wholesome training, and it is difficult to see how without some little discipline of this sort a genuine and permanent association can be built up.

Other organizations such as Women's Institutes, Scouts, and so on, are dealt with in other chapters.

THE VILLAGE BOOK OF PROGRESS

In all villages where intensive work is going on there should be a note-book or file kept, where each visitor can record what he sees being done and what the villagers agree to do next. This will form a permanent progress report, it will keep the villagers up to the mark and give touring officers a definite line to work upon. When an officer visits the village, instead of just having to confine himself to general talk, he will see from the file that A and B promised some time ago to sow 8A wheat. He will go and see if they have done so, and record the result. He will then discuss the next move and make a note that C and D have agreed to enlarge their ventilators. The next visitor will see if they have done so, and so it will go on. Every visitor will not only record the work of his own department but of the others as well, and so we shall get double and treble value for all money spent on touring, and every village will have its own programme of work, which is known at once to every visiting officer of every department. No more need for vagueness and general propaganda to general gatherings, and no more wandering purposelessly from village to village, but a definite tour to definite villages to look at definite work and to suggest and discuss new lines for the acceptance of villagers who are already engaged in useful work.

¹ See p. 18.

CHAPTER XII

CO-OPERATION

THE best of all forms of self-help is the co-operative society, as it is not only self-help but mutual help also. It has the further advantages that it teaches organization, methodical habits, and self-government, and it fosters self-reliance, mutual confidence, and independence. It is also able to contribute part at least of the costs of its own organization and supervision. In more than one country has co-operation raised a poor and indebted peasantry to prosperity and independence. It is the ideal method for a small-holding, poor and debt-ridden country like the Punjab. Where co-operation has not always been the success it should be, it is not through any defect in the system, but in its local application and in the training of the villagers in its principles.

In the Punjab, co-operation, though it has achieved much, has not always been an unqualified success. The reason is not far to seek. In the country of its origin were men determined to raise their standard of living, but prevented from doing so by debt and disorganization. They were ready to make any effort and any sacrifice to achieve their object, they had a strong element of mutual sympathy and goodwill, and they invented co-operation as the means to their end. There was a strongly felt need and a determination to meet that need, and these, with the bond of mutual sympathy and goodwill, are the basis of all genuine co-operation. In the Punjab also were men with the

millstone of debt round their necks, but they had no determination to raise their standard of living and therefore no particular desire to get out of debt.¹ There was certainly no link of fellow-feeling powerful enough to make them ready to sink all differences and work together, and therefore no driving force to enable them to make the sacrifices and efforts necessary for those who travel the uphill road of progress.

Co-operation was introduced into the Punjab from without, not invented from within. As the provision of rural credit, not the raising of the standard of living was the principal object of the introducers, the Credit Society was and still is the principal form of co-operative society established. As the people, or most of them, were without any social ambition or motive in joining the co-operative society, too many of them used the new system not to escape from debt but to obtain cheap credit. They swallowed the lessons of thrift and co-operative effort with a gulp, and rushed for the cheap money. No wonder, therefore, when the depression came, co-operation went through a bad time.

Looking back one is tempted to suggest that the Credit Society was not the best form in which co-operation should have been introduced to people who were reckless of debt and without the discipline and the virtues of true co-operators. It is easy to be wise now, of course, but for the future the policy is to approach credit through the training and self-denial of thrift and better living.

Those, however, who merely point to its failures and say they have no use for co-operation, are speaking in ignorance of its principles, of its history in other countries and of what it has done and can do in the Punjab itself.

¹ See pp. 2, 7-8, 22-4.

Co-operation was not the only financial structure that found itself in trouble when the post-War boom came to a sudden end and co-operation stood the strain much better than most. Over-borrowing there had probably been in certain cases in spite of its discouragement by the supervising staff. But deliberate over-borrowing was a minor cause of difficulties. The principal causes were first the depression itself and then the over-financing which had taken place not because of cheap money but because of the general inflation of credit and the enormous rise in the general standard of living caused by the boom.

Co-operation is a means—for the smallholder and the villager, the ideal means—of saving those who are determined to save themselves, and so to rise in the scale of human existence.

The organization and supervision of co-operative societies is a technical business and those who have not been fully trained in its principles and practice should not meddle with it, as unsound co-operative societies do more harm than good. Above all, let no one press for immediate results and think that he can sow his district with societies in a few months. Co-operation is not merely a matter of registers and entrance fees. It begins in the heart, and until it begins there it can never hope to be a success. Co-operation to be of any use must be a slow and difficult growth, depending on the absorption of stern principles of self-sacrifice, self-help and mutual help, and it is this anxiety for quick results that has in some cases given the movement a bad name by starting innumerable societies which had no roots in the hearts of their members.

This does not mean that social workers should have nothing to do with co-operation. Far from it. Stir up the people to organize themselves co-operatively for all their

needs, visit societies and discuss their work with the members. Keep in close touch with the co-operative staff so that your energies may be applied in the best way possible and you may be of greater use to the movement. But leave the expert staff to select the time and the place for the starting of actual societies and to supervise their technical working. So, too, the general direction of credit policy and methods must be in the hands of experts, whether official or non-official. The marks of a good society are work done, interest displayed by members in its proceedings and knowledge of the rules, absence of parties in the society and, when money is concerned, the proper application and the prompt repayment of loans, the absence of big loans to committee men, and a reasonable amount of reserves, deposits by members, and owned capital of all kinds.

I. PRINCIPLES

For successful co-operation there are, besides common honesty and a spirit of mutual goodwill and sympathy, two essentials;¹ a well-felt and generally felt need, and such a burning desire to meet that need that those who feel it are ready to join together, to sink all their differences and to help themselves and each other. When the organizing agency has found such a need, or has taught the people to see their needs and has inspired them with the urgent desire of meeting them, then and then only can a successful co-operative society be established. The reduction of ceremonial expenses is nowadays just such a need, and the co-operative department is very successfully

¹ It is interesting to note that the principles of the Boy Scout movement are almost identical with those of the co-operative movement: integrity, self-help, and mutual help. These of course are the foundations of all civilized life.

organizing Better Living Societies¹ to meet that need. A still more deeply felt need in the more advanced parts of the province is the consolidation of holdings.² By inheritance and other forms of transfer and alienation the farm holdings have got so scattered that a man with a six-acre farm may have thirty or forty fields scattered over the whole area of the village. The farmers are desperate. They cannot plough, they cannot watch their crops, new wells cannot be sunk, irrigation water is wasted, and causes of quarrel and dispute are innumerable. They are ready to do anything, even to give up the fields they and their forebears have farmed for hundreds of years, even to abandon their pet feuds and quarrels, if only by a process of mutual exchanges, they can get all their land together in one or two places instead of twenty or thirty. Here is the ideal opportunity for co-operation. And co-operation has seized it and is here seen at its very best. A visit to the villages where the latest methods of consolidation are in vogue is an inspiration. Not only are the fields being re-planned and re-allotted, but the whole lay-out of the village is being redone, roads are being straightened, widened and raised, ponds and depressions round the village are being filled and new ponds dug in more suitable spots, recreation grounds are being provided, an area for refuse pits set aside, pits are being dug, even rose hedges planted on both sides of some of the roads, while in some villages they are already thinking of rebuilding the whole village on a new plan. Brick kilns, graveyards, and burning-ghats have been re-sited in more suitable places, occupancy tenants have been settled with—in most cases receiving ownership of three-quarters of their tenancies—adverse possession which could probably have been

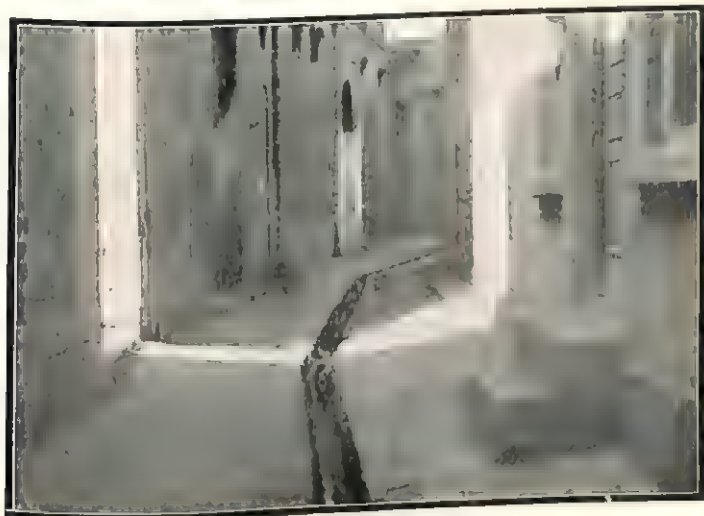
¹ See p. 173.

² See pp. 174, 199, 202.



ROAD MENDING

Raising and improving the village roads is work organized by the panchayat or co-operative society



A PAVED STREET

Paid for and carried out by those living on both sides.
A common feature now, in the Punjab [See p. 130]

established in the law courts has been abandoned, and other awkward obstacles have been removed to suit the new lay-out—those who know the Punjab will realize what a wonderful spring has been touched to make all this possible!¹

The stimulus of successful co-operation, the realization that joint effort will defeat every difficulty, and the complete break with the past involved in giving up their ancestral land has at last roused the people to make a real job of it and to put their homes, farms, and village right with one big co-operative effort. So much so that I am tempted to suggest that the whole of the efforts of rural reconstruction—outside the Canal Colonies, of course, where the holdings are not yet fragmented—should be confined to the area where consolidation has been or is being carried out, and the biggest share of all money available should go to the organizing of further consolidation. Not that consolidation should be done free of charge. Nothing should be free of charge. Those who really want consolidation—and it is no use touching those who do not really want it—are only too willing to pay at least a share of the cost, and are already doing so. The law recently passed to assist this work may enable the cost to be reduced, but a certain amount of public money will always be wanted, and this should be found without stint, and the organization of co-operative consolidation developed to the maximum that is possible without reduction in the quality of the work or in that most essential part of all rural work, supervision.

One mark, and alas only too rare a mark, of a good bank is a number of debt-free members who have joined,

¹ Many villagers from the tract where this is going on have spent a large part of their lives abroad. They have seen better things and are determined to have them in their own homes.

not for what they hope to get out of it, but to help their neighbours and village. These and those who have deposits in the bank will exercise a very healthy influence in restricting borrowing to genuine necessities.

Each different activity usually requires a special society and it is right not to confuse the members by having too many objectives in one society. Otherwise the main objective may be overlaid by subsidiary activities—less important but perhaps more spectacular—and so get forgotten and neglected. For instance, if a credit society fails through omitting to collect its instalments of capital and interest, it is little consolation to the movement or the members that they had a famous football team. At the same time a reasonable amount of 'better living' or civilization should be the object of all societies, whatever their principal object, as the end of all co-operation is a higher standard of living—the increase of happiness. It is little consolation to the family of a co-operator who dies of tuberculosis from neglecting to ventilate his house, that his society was in the first grade. Whatever the object of the society it will obviously be assisted if the members follow the common rules of health and better living.

In the Punjab all co-operative societies are graded according to the quality of their work and financial standing into four classes: A, B, C and D. D is hardly worth the name of a co-operative society. C is a bit better, but in co-operation as in everything else, what is worth doing at all, is worth doing well, and every member should strive to get his society into the top class or at least into B class. An A class society is completely independent of official control other than the statutory annual audit.

Good societies have a common good fund from which, with the sanction of the supervising authorities good causes

—from training a dai to mending a well or buying a football or a newspaper—can be helped. An excellent system has been developed in the Punjab whereby money is found by certain co-operative societies for a few veterinary appliances and medicines, and for current expenses. Three members from each society are trained in veterinary first-aid and animal management and they establish first-aid stations for animals in their villages. A small leaflet on instructions has been printed, veterinary officers keep their eye on the stations, and the stations work in close touch with the veterinary hospitals and send on cases to them when necessary. This system is now being extended to first-aid for human beings.

A good and well-established society can, from the example of its members and its common good fund, give great encouragement to the general movement of better living in its village and can, of course, support district organizations such as the Red Cross, Boy Scouts, the village newspaper or the *Dehat Sudhar* Committee. A co-operative society can and should be in every respect a 'good citizen'.

Village industries and handicrafts can only hope to survive in competition with mass production and power machinery if they are organized co-operatively, both for the supply of implements, raw materials, and finance, and for the improvement of methods and processes and for marketing. Otherwise, the margin of profit is so small that the cottage producer will either be driven out of business altogether; or the middleman—financier, or distributor—will get what little profit there is while the producer remains the poor and sweated serf he has always been.

It is just as important to organize women co-operatively as men, but their societies are dealt with in the chapter on Women's Work.

II. VARIOUS KINDS OF SOCIETIES

It is impossible to describe all the various kinds of societies.¹ Let us give a short description² of several :

(i) *Better Living societies.* This form of society has a very comprehensive programme and embraces almost the whole field of rural reconstruction. It is intended to improve life in the villages in all its aspects. All who join a better living society undertake to lead an improved life in conformity with the rules of the society or in default to pay a fine imposed by the committee up to a maximum amount laid down in the by-laws. It seeks among other things to reduce ceremonial expenditure, improve the sanitation of the village, reform unhygienic habits, organize village games, etc. A Co-operative Better Living society offers one of the best methods of rural reconstruction as it provides a permanent local organization and receives regular supervision.

(ii) *Cattle Breeding societies.*³ Figures show that after payment of old debts expenditure on cattle is one of the heaviest items in the cultivator's budget. Except for a few special areas the average type of cattle found in a village is of poor quality. The animals are weak, liable to illness and unable to produce good young stock. Co-operative Cattle Breeding societies attempt to raise the standard of cattle in the village. A society arranges or persuades the District Board to arrange for a pedigree bull. Scrub bulls are eliminated and each member is expected to keep at least one approved cow. A record is kept of the

¹ There are about 19,000 Credit Societies and 4,000 others at present in the Punjab, with 800,000 members and Rs. 19,00,00,000 capital.

² The following notes have been very kindly written for me by Mr J. C. W. Eustace, I.C.S., and Syed Zahur Hussain Shah, of the Punjab Co-operative Department and are reproduced verbatim.

³ See p. 97.

coverings and the stock is regularly inspected. Societies in Amritsar District have been very successful in importing not only pedigree bulls but pedigree heifers as well. The successful breeder benefits not only by having improved bullocks for his own use but is able to earn a steady income from the sale of his bullocks to his less fortunate neighbours. At present attention has been mostly paid to the breeding of improved bullocks for draught and for plough. Societies can also be formed to improve the milk yield of cows and to improve the breed of buffaloes, sheep and goats.

(iii) *Arbitration societies.* Litigation has for long been a curse in the province and, until the depression, lacs of rupees were spent every year on cases which could very well be decided in the village. Co-operative Arbitration societies attempt to include at least one person from each family in their village. Members when they join agree to bring their differences to the society before taking them to court, under a penalty of a fine. A panel of arbitrators is chosen by the society and each disputant is free to choose one arbitrator, while a third may be selected on behalf of the society. These arbitrators then hear the case and as they are fully aware of the true facts give a correct decision. In a good arbitration society where members are convinced of the advantages there are seldom any appeals against the arbitrators' decision.

(iv) *Consolidation of Holdings societies.*¹ Consolidation of Holdings societies are now started where the whole village not only wishes the work done but is also prepared to pay for it at an agreed rate of so many annas per acre. The owners then place all their land in a common pool. The roads and paths are then fixed and land which is to be left aside for any common purpose (as for example a school

¹ See pp. 168, 283 (3), 289 (19).

or playground). A road is made round the village and plots allotted in which each member can start his manure pits. The remaining land is then divided up amongst members in proportion to their original holdings. Several thousand fields are reduced to a few hundred and it is seldom that any cultivator has at the end more than three or four fields.¹ Several are always able to combine all their land in one place. One immediate result in a consolidated village where well-irrigation is possible is the sudden increase in the number of wells. Efforts are now made to follow up a Consolidation of Holdings society with a Better Farming, Fruit Growing or other type of society which will continue the work which has been so well begun.

(v) *Industrial societies.*² The industrial revolution has come late in India but during the last ten years the increasing import of factory-made articles together with the start of factories in the province has seriously affected the position of the village and town artisan and cottage worker. These men have for generations supplied the villager with all his wants, with his clothes, his oil and his luxuries. Individually there would appear to be little hope for the survival of the handworker. Industrial co-operative societies alone offer some solution. These societies have been specially organized amongst handworkers for very definite objects. They endeavour to reduce the cost of the worker's raw material by purchasing in bulk in the cheapest market. They advise the worker of the prevailing fashions and try to improve the technical side of his work. Finally they try to find a market for the finished articles. One of the greatest difficulties under which the artisan

¹ The ideal of one plot per cultivator has just been attained in one village.

² See pp. 251, 283 (7).

at present suffers is that he is entirely in the hands of the moneylender and bazaar agent. The latter advances him the raw material at high rates of interest and takes in repayment the finished articles at far below market rates. Industrial co-operative societies provide members with cheap finance and when able to sell members' goods almost the whole of the profit is given to the members. During the last two years there has been a considerable revival amongst these societies and it has been found that in certain lines the co-operative handworker is fully able to compete with factory-made articles.¹ Most of the industrial societies are amongst weavers, but they also include shoe-makers, tanners, carpenters, furniture makers, oil pressers, potters, basket makers, glue makers, tailors, dyers, rug makers, sports goods makers, metal workers and others.

The following is a list of some of the kinds of societies already working in the Punjab :

1. Rural thrift and credit.
2. Urban thrift and credit.
3. Thrift and savings (for men, women and children).
4. Co-operative stores.
5. School supply.
6. Commission shops.
7. Industrial (weavers, leather workers, carpet makers, etc.).
8. Consolidation of holdings.
9. Better farming.
10. Cattle breeding.
11. Sheep breeding.
12. Fruit growing.
13. Silt clearance.

¹ See 'pp. 53, 251.

14. *Cho*¹ reclamation.
15. Land revenue redemption.
16. Compulsory education.
17. Arbitration.
18. Better living.
19. Land Mortgage Bank.
20. Adult school.
21. Lac producing.
22. Crop failure and relief.

Here are some types of societies which it is hoped to organize in the near future :

23. Milk supply.
24. Milk recording.
25. Dairy society.
26. Poultry society.
27. Fishermen's society.
28. Cattle insurance.
29. Ghee society.

This list is not exhaustive.² As the Rural Reconstruction movement spreads and deepens, new needs will arise and as the co-operative spirit grows, co-operation will design the best organization to meet them. Even water supply, medical aid and trained dais can be co-operatively provided.

In fact there is probably no need of the rural community that cannot be co-operatively supplied. Meanwhile the discipline of thrift, joint endeavour, and better living will prepare the villagers to make the best use of that very difficult form of co-operation, the credit society.³ *Marketing*

¹ Land destroyed by hill torrents. See chap. vii.

² See p. 254 (dates).

³ A very promising experiment has been started in several districts whereby members of co-operative societies market grain through approved and registered dealers (*ārhtis*). The dealers give them a receipt and remit the price to their co-operative society.

of *produce* is still more difficult but co-operation must tackle it, and in time will do so, when by a better understanding of the co-operative movement, its peculiar virtues of honesty and mutual goodwill have become more widespread and more deeply engrained in the people.

Once villagers realize the value of a co-operative institution and are ready to put their hearts into it, the naturally homogeneous character of the village is of the greatest assistance in binding the members together. The Punjab villager has a great advantage over many other co-operators by being a member of a *baradari* (brotherhood) and of a self-contained village and he should be made to realize this. At the moment, however, in spite of the homogeneity—or perhaps because of it!—the Punjab village lives a cat-and-dog life with its factions and parties, and much of its troubles and of its poverty and debt are caused by this curse of strife. Nothing is more needed than the spirit of co-operation, of the good neighbour. Mutual goodwill is the essence of co-operation, and in a co-operative society, every member is his neighbour's keeper. The more we can get of this in the Punjab, the better. The committee of a co-operative society, if impartial and respected, can do much to preserve peace and harmony in a village. There is, however, one society, the Co-operative Arbitration society,¹ especially designed to prevent and to liquidate disputes and quarrels, and the Punjab cannot have too many of them.

Co-operation is the cement which holds together and consolidates the edifice of rural reconstruction, and without it or without a well-established panchayat our efforts will be but temporary, and any building we erect will sooner or later disintegrate. What is worth doing at all is still

¹ See p. 174.

better worth doing co-operatively. The progress of the country could be built on no surer foundation than that of co-operation. But it must be true co-operation and not any imitation.

For true co-operation, trained and adequate supervision is absolutely essential. At no period that can at present be foreseen, will it be possible to expand the movement beyond the available supervising staff without bringing certain disaster. If, therefore, progress is desired and the co-operative way is to be followed, money must be found in steadily increasing amounts. It is probable that co-operative societies can and should be made increasingly to contribute to the costs of their organization and supervision, but whether it is co-operative or taxpayer's money or both, it must be found freely if co-operation is to expand to keep pace with the need and the desire for national progress. And no better use could be found for money.

CHAPTER XIII

THE VILLAGE SCHOOL¹

THE intellectual centre of the village is the school.² It should develop and maintain rural culture and help to make the boys and girls grow up better villagers. Unfortunately in India, as elsewhere, urban ideas and urban curricula have for long been killing village culture and spreading the desire for an urban type of life, with the result that the village and its ways and even its dress have fallen into contempt, and the villager looks more and more to the towns for his culture, entertainment, and everything else; and the ambition of the growing village lad is not to live in and improve his village but to be a hanger-on of town life and thought. Instead of getting the best out of village life, he gets the worst out of town life. Some colleges are perhaps the worst offenders in creating an atmosphere of hostility and contempt for rural life and rural people.

At last, however, the tide has turned and in India, as all over the rest of the world, there is a very strong movement, in which the village school is playing a steadily growing part, to help the village to recover and develop its own individuality.

The Education Department is developing, as rapidly as

¹ The first two chapters of the *Report on Vocational Education in India* (1937) should be most carefully studied. They concern the primary and middle schools and are written by Mr S. H. Wood, M.C.

² See *The Village Dynamo* (English or Urdu, Gulab Singh and Sons, Lahore, 4 as.). See also page 280.

such a vast and scattered organization can, the rural tide of the school curriculum, and the Normal Schools devote much time to this.

The Punjab village schoolmaster—in the absence of any other centre of enlightenment—has a very big opportunity and a very big responsibility. As he trains the village children, so will be the village of the next generation. His influence for good will obviously be infinitely greater if his home, as well as his school, reflects the new light, but this can never happen until his wife can share his burden, so that the first requisite of a village schoolmaster is a wife who has received a full training in the women's side of domestic and village culture.

The teacher bewails the effect of *pohli*¹ weeks and health weeks, singing and propaganda parties and so on, upon his examination results. His best possible contribution to the cause, however, is the example of his home and school. Clean, bright, smart children arriving punctually at school are a far better advertisement of the better village movement than any amount of singing parties, processions, slogans and weeks. If the boys are really and intelligently interested in the fighting of pests and weeds, there will be no need for laborious fatigue parties to demonstrate its necessity.

The school garden or farm is too often a matter of routine. It should be the opening of the wonder book of nature. Every operation in every plot of ground should have a definite purpose, which has been carefully discussed in advance with the students. Budding, layering and grafting are excellent things to teach. In advanced areas such as the Canal Colonies, the best use of the school plot is perhaps to teach the growing of flowers and vegetables. In backward

¹ A very noxious and prickly weed. See pp. 219, 229-30.

areas, all manner of experiments and demonstrations—varieties of seed, variations in ploughing and cultivating, manures of various kinds and prepared in different ways—can be carried out in small plots and by the pupils themselves. Only in this way will the devil of fatalism and the tyranny of custom be driven out, and the villager learn how much, by the use of brains, skill and hard work, he can control or influence the workings of nature in his fields.

The objective of the village school has often been stated as the spread of literacy. The spread of good citizenship is a worthier objective with the attainment of literacy as a by-product. The health and peace of the village are largely matters of discipline, self-respect, and self-control, and these are the result of the careful teaching, in early life, of clean and regular habits and a tidy and disciplined school routine. The teaching of health knowledge and the putting of this knowledge into practice in daily life must always be one of the major objectives of education and is even more important than the achievement of literacy. Fortunately, the teaching and practising of cleanliness and of clean habits is one of the very best media for the education of small children and is, in fact, almost the only discipline to which at the tenderest ages they are amenable. The laying of the foundations of self-control and self-respect is done by this teaching and, of course, the first teacher of all these things should be the mother. But till she is herself trained, she obviously cannot undertake it, and so a double responsibility rests on the school teacher. Strong healthy children are far easier to teach than weak or sickly ones—in fact underfed or ailing children get very little benefit whatever from school—so that as a mere matter of self-interest the teacher should be interested in the health of his school.

Mosquito-nets should be compulsory in the boarding house—and in the teacher's home!—and midday meals should be a matter of very serious consultation with parents and village elders.¹

The district authorities, educational, health or medical, and agricultural, should try and prescribe, in accordance with the agricultural possibilities of each part of the district, scales of food both for the children to eat before leaving home and to bring with them to school for the midday meal. Where genuine poverty is proved, or the proper food cannot be grown locally, then local philanthropy or the Red Cross or some other agency must be enlisted to see what can be done to enable the children to get full mental and physical value from their lessons and games.

Reading and writing must be taught, books must be read and sums must be done, but the school games and the school farm and garden and the teaching of a clean and regular and orderly manner of living are probably the most important parts of the village child's education, and it is for the examinations to accommodate themselves to such a curriculum rather than for the curriculum to be sacrificed to the examinations.

A common complaint is that literacy, hardly won at school, is soon lost after leaving school, while adult illiterates have no desire to achieve literacy. This will persist until the village mothers are literate and there is an ample supply of good readable books, magazines and papers for all classes of the population, and a small library in every village.

Arithmetical problems can illustrate many of the lessons of village life, the multiplication of pests, the cubic content of pits, the difference in money value of the yield

¹ See p. 110.

of good and bad seed or good and bad methods of cultivation over various acreages, the earthwork required to raise the village road, the result over a period of years of various rates of interest, the cost of various extravagances compared with the cost of various improvements, the result of productive and unproductive expenditure, and so on. The rural science subject of the Punjab middle schools is an excellent means of applying the principles of science to the facts of village life. The different kinds of haybox can be tested with a thermometer, the necessity for ventilation can be demonstrated with candles and cardboard houses, mosquitoes can be bred in glass bowls. Their life history and that of flies, and the trying out of methods of destroying both, are as useful for Nature Study as any other creatures. It is only a matter of ingenuity and initiative to make the subject rural, practical and scientific.

General Knowledge should include some details of savings banks and co-operative societies, the various breeds of cattle and kinds of seeds and implements, the acreages of various crops in the district and province, the incidence of disease and child mortality, and other population figures for the district and province, the round figures of the main items of local and provincial budgets, weights and measurements, postal,¹ telegraph and railway information, and traffic rules, so that the villager may take a lively and growing interest in the world around him.

The schoolmaster has been made responsible for the keeping of the schoolchildren's vaccination record and he has a register for this purpose ; but he very rarely uses it

¹ The Post Office issues a one-anna guide in English and in eight vernaculars and cheap posters combining instruction with decorations. Schools might well buy these.

aright. He often hands it to the vaccinator to fill in ! And yet the business is very simple. When a boy enters school his arm is examined. If there are no vaccination marks he is vaccinated on the first possible occasion. If marks are found, unless the date can be found in the village vaccination record, a note is made in the first column that vaccination marks are present. If the child is six or more years old a second vaccination is immediately done and recorded and so on every six years until the child leaves school. If he goes on to another school he must take a copy of his record with him.

Games. Games are very definitely a part of education, but good games mean careful thought and organization. Much time is often wasted in starting them. When the games period comes the boys move out slowly and are a long time being pushed and pulled and shouted into some sort of formation, and many groups do not seem to be able to carry on at all without the masters to keep on handling and exhorting the boys. The groups are far too big, as usually each class, however big, forms one game. There is no variety of games, the games are often dull, and many of them are played quite wrongly so that they are no fun at all. Games must be so interesting that boys will play them for their own sake and not at the exhortation of the masters, and the rules must be carefully taught so that they are always played the right way. The games period must go with a snap and all games must be played keenly and according to the rules, otherwise half their value in promoting health, discipline and the team spirit is lost.

Games are undoubtedly at their best when the masters join in themselves and do not merely stand by and supervise. There are innumerable good games, and the ones chosen must be suited to the ages and sizes of the boys

who have to play them. Small boys must be put into small groups, otherwise many of them get no share of the game and stand still getting bored while they watch the few who do play running round such big circles that they are tired before half-way round and hate the whole thing. The little boys may want the help of a master. The bigger ones should certainly learn to play properly and to keep the rules by themselves, without any supervision at all.

For a quick play-for-all period, divide the playground into the right number of spaces for your groups of boys and on each space mark out a game. Select one of every kind of game, running, walking, jumping, quick-thinking, round, square, ball games, games in lines, and so on, so that there may be no monotony, and then put them in such an order on your playground that the running games alternate with stationary or slow-moving games and boys will not get hot for half the period and cold for the rest. You may want two sets of games ; one for bigger and one for smaller boys. When you blow the whistle for the games period every boy knows on which space his first game is to be, and he will run straight to it and start playing. When the five minutes' whistle blows every group moves on one space and starts the game marked out there. In half an hour every child has played half a dozen good games.

Every game must have a name so that boys can be told, if necessary, which game to play. Every few weeks one or more of the games must be changed, but some are so popular that they never need changing. Long jump and high jump should be practised regularly. They are very good for teaching co-ordination of brain, eye and body, they encourage sprinting and develop many muscles, and if all the schools practise them, in a short time the very

low standards we now have for both long and high jumps will rise. Keep careful records of both long and high jumps as nothing makes boys keener than the hope of beating a class or a school record.

Singing. If the teacher has no voice and no ear for music, he should leave singing alone. Bad singing is terrible and does no good to anyone. When singing is taught, don't allow one or two boys to do all the singing. Teach as many boys as you can and have as many choruses as possible for all to join in. Don't write your own songs unless you happen to be a good poet. Get them from the District Inspector of Schools. Rubbishy songs are worse than none at all and it is unfair to make children learn by heart anything but the very best. Avoid long dull songs and don't be always writing stupid songs in praise of whoever comes to visit your school. Get a decent set of songs with jolly good tunes, about useful and interesting things that the boys will enjoy at all times, and when visitors come sing a verse of each of them and let different boys sing different songs so that we may know how many songs and singers you have got.

All boys love tamashas, so have a tamasha every now and then for the village people when they will see what you are doing and how the boys are getting on at your school. They will learn your songs, watch your games and your dramas and be shown any models and exhibitions you have made, and be taught something about improving their farms and homes. Take your boys to villages and *mêlas* round about and show the people there all the things you are teaching and practising in your school. When you make models, posters or exhibitions remember that half their value lies in the making of them. The boys who make them have to learn a great deal about the subject they are

illustrating and the actual handicraft of making them is another valuable thing. So when you have made a thing, use it for a tamasha or a *mêla* or two and then present it to the boy who made it to hang in his house or to give to the village to put in its meeting-place. Then set to work and teach other boys to make another, to a new and improved design.

Above all, practice what you preach. Do not make songs, posters or models of pits and vaccination and then have no pit at your school and allow unvaccinated children in your classes. Teach nothing that you do not practise in your school and in your home, otherwise you will do no good and no one will respect you.

Nature study. Watch the birds and study their habits. Draw up lists of those birds which help the farmer by eating grubs and moths and insects and of those birds which harm the farmer by eating his grain and fruit. Develop the boys' curiosity. Try things out and don't take everything in the books on trust. When you discuss malaria, go and catch the young larvae and keep them till they hatch. When you find a caterpillar keep it and feed it, and see what sort of moth or butterfly it will turn into.

Self-help. I find expensive indoor games in some schools and volley-ball nets bought from the shops. Teach the boys to make their own nets and their own indoor games. With a pocket knife and some wood, cardboard, paper, glue and coloured pencils you can make nearly every indoor game you want to play, and the making of them is nearly as much fun as the playing of them. Do try to develop the ingenuity and handicraft skill of your boys. In one school they could not play football because they were not allowed to leave their goal-posts standing in the field between games. What rot ! Carry your posts to and

from the field every day and don't say 'you can't play football !

Visitors. When an important visitor is expected, do not get all your boys out and keep them idle and possibly shivering or stewing for hours. Play games, sing songs or go on with your lessons, but do not sit or stand about idle. As soon as you see your visitor approaching, start your programme—burst into song, begin your games or whatever it is—and let him arrive while it is going on. He is probably a busy man and has to move on elsewhere when he has had a look round, so do not delay things. Above all, do not hold him up at the gate while three boys sing a long song of welcome. He wants to see all the boys, not three only, and the boys want to see him, so take him among the boys straight away.

The school is but one of the means by which the teacher teaches. He must be in close touch with the parents, and by whatever means possible must spread enlightenment in the village whether it is by a games club, night school, readings, wireless group, or any of the other village associations described in this book.

All this is very easy to say, but what about the village teacher? His education is slight, his pay is slighter, and he has not the cultural and social backing of a squire or vicar. Isolated from his fellows and from all contact with the stimulus of new ideas and information,¹ how will he avoid slipping into a deadly groove of monotonous school routine that utterly fails to interest or stimulate his pupils or their parents? This, of course, will be less difficult if his wife has been trained in the same ideals as himself.

¹ A 'Book of Knowledge' is very much wanted, dealing alphabetically with all the common Punjab things a Punjabi should know. A Punjab Year Book is another great need.

Wireless and a good village newspaper, plenty of refresher courses and rural gatherings of all sorts are the only remedies possible for this threat of stagnation, and are more than sufficient excuse for expecting the village schoolmaster, if only for the purpose of keeping his own soul alive, to take a leading part in every rural activity.

Within no period that we can foresee will every child learn to read and write, and yet adult education bristles with difficulties. We now have the new Laubach method, with basic vocabularies of Urdu and Punjabi to support it, by which literacy, it is claimed, can be achieved and passed on with ease. But the hard fact is that the average adult villager does not want to read. If he did, he would soon learn as there are enough literates about now to start movements similar to those in Mexico and China. Adult education will always be difficult until there is a really strong desire to learn to read, and that will only come when there is something—books, newspapers, etc.—which the people really want to read. In England the urge came first from the Bible, and now it is the football results ! The lesson is the same. Produce something which everyone *must* read. One wonders whether Roman Urdu, with its ease of printing and reading, will not be the final solution of rural illiteracy.

As for the district authorities, they can give great encouragement to education by visiting schools, by being easy of access to the inspecting staff, and by displaying intelligent interest in the work. One of the tests of efficiency is the even flow of promotion from the first class upwards and the absence of a big and stagnating first class. The best teacher of the tiny child, whether boy or girl, is, of course, a woman, so that the best remedy for this stagnation is female teachers for the infant classes.

A word to Assistant Commissioners and others who visit schools. Never mind the instructional efficiency of the teaching staff. Government keeps a trained inspectorate for that. Your visit is something special, and let it remain so. Try and make it a treat for the children, as well as merely a bit of routine work for you. As clean habits are the foundation of civilization, start with a look round to see that all is clean within and without, paper and litter not thrown over the wall or out of the back windows. See that there are soap and water and a decent clean latrine and urinal ; otherwise, clean and regular habits cannot be taught. See if the children are clean, bright and happy ; have a look at eyes, nails and hands. See a few vaccination marks. Ask a few questions about crops, health and other matters of general interest. Do some knots and law with the Scouts. If you don't know these things already, learn them up beforehand—it is well worth while. Watch the games for a minute or two and, if you possibly can, teach them a new one. Then try them at animal noises—make some yourself if you can !—and end up with cheers for the King-Emperor ; teach them how to cheer if they don't do it well. They will never forget your visit and you will at any rate have made one dull school day bright !

Scouting. Scouting is a particularly useful activity but it must be proper Scouting. The only way to get value from a game is to play it according to the rules, and the game of Scouting is no exception. A fully-trained Scout-master is essential for a good troop, the troop must be affiliated to the provincial association, and a proper record kept, in the proper register, of the boys who are enlisted, and of their progress in Scouting. Above all, boys must be entered at the earliest possible age so that they may imbibe something of the principles and spirit of Scouting before

they leave school, instead of being squeezed into a uniform in their last year at school in order to form processions and arches of staves.

The ambition of every school troop must be to have as many King's Scouts and First Class Scouts as possible. A mere boy in uniform is no Scout, and he should not be allowed to wear uniform till he has passed his tests and been sworn in. Stockings should only be worn when the wearer knows how to darn them. The shoe-lace knot is a form of reef-knot and must always be tied as such. Whatever uniform is worn should be clean and tidy—not necessarily new or expensive. There are badges to be won for every kind of useful and interesting activity, and every Scout must be encouraged to work for badges. In a country where tempers are quick, and dirt, disease and sudden death abound, the Ambulance and Health Man badges should be earned by every Scout as a matter of course. This may mean hiking to the nearest doctor to learn but it is well worth while. A few good Scouts are worth many indifferent ones, and to teach eyewash to growing boys is an unforgivable sin.

Do not allow boys to join who have not been vaccinated and re-vaccinated properly. Make this a condition of joining and enter their vaccination dates in your troop register. See also that your boys' families are properly vaccinated and re-vaccinated as otherwise your Scouts cannot help in social work for fear of taking germs home with them and infecting their sisters and brothers.

You cannot wear ear-rings and other trinkets in Scout uniform as they are a breach of the ninth Scout law. Teach your troop about savings banks, thrift and co-operative societies of all sorts.

Have a triple objective for your troop and its patrols :

(i) A games objective: Select one or more games by patrols or for the troop and become really expert at them and beat all the schools and villages around.

(ii) A badges objective: Select certain badges by patrols or for the troop and go for them whole-heartedly.

(iii) A social service objective: Let one patrol be a pit patrol, another a vaccination or window, a dramatic or a song-singing patrol and so on. The ventilation patrol makes a wooden frame, say two and a half feet by one foot, fits it with wire gauze, and persuades the owner of some dark, unventilated house to let it put this into his house just below the roof. The patrol then makes another and puts that in somewhere else and so on.

Tackle each village trouble at the right time. Dirt is always in season, but don't preach vaccination in July or quinine at Christmas. A good way of encouraging good seed is for the boys to get as many of their own parents to sow it as possible and then have a school competition at harvest time to see who can produce the best plants of wheat or the best heads of *bajra* or cotton, etc., from their fathers' fields. The winning specimens will be put on the walls of the school till better ones are produced next year.

One of our besetting sins is slackness and slovenliness. We are always saying, 'That is good enough', 'Why bother?', 'No one will see it', and so on. The remedy is Scouting, but only if you Scout properly. If you Scout at all, Scout smartly. Better no Scout than a slovenly one. Teach personal pride—pride in our work, pride in our games, pride in our troop turn-out. If you do this, your boys in later life will take pride in their farming, pride in their honesty, pride in their homes. The boys will never thank you for allowing the troop to be slack and slovenly, so do not think you are being kind to your boys by letting the

troop get slack. No, you are just letting yourself and the Scout movement down and spoiling the best chance of fun your boys will ever have.

Do make Scouting practical and make it part of your own daily life and part of your boys' daily lives. All Scouts know their knots, but how many tie their shoe-laces properly? All Scouts say mosquito larvae must be killed, but how many know them when they see them? How many have collected them in a glass jar and seen them hatch out so as to be sure of them and to convince villagers also that the little wrigglers in the water really do turn into mosquitoes? How many Scouts use quinine and mosquito-nets themselves? All Scouts know about 8A wheat. How many get their fathers to sow it and actually see it grow and see how much better it is than other people's? Scouts all talk about the good turn. How many really do it? Many Scouts do a thoroughly bad turn every day by using the ground round the village as a latrine, instead of using a pit or trench. One good turn is to escort your little sister to school every day. Another good turn is to weed your father's fields, not with a squat-down *kurpa* but with a stand-up manly long-handled hoe. Make all your Scouting practical and make it all part of your everyday life.

Always remember that Scouting is a game and there must be plenty of real fun and play as well as uplift and badge work. Above all do not use the Scout troop as a means of attracting attention to yourself and thereby obtaining promotion. Promotion may or may not be your happy lot, but it has nothing to do with Scouting. Do your duty by your boys and your village and nothing else matters.

CHAPTER XIV

DISTRICT ORGANIZATION

To produce the best results in rural work, the district requires organization just as much as the village. If everybody goes his own way without co-operation and without co-ordination, effort will be dissipated, money wasted and people will soon be pulling in opposite directions.

In the absence of strong non-official organizations, the best, in fact the only, possible centre is the official head of the district, the Deputy Commissioner. It is his duty so to lead, inspire and organize the efforts of all good citizens, official and non-official, that there is no waste or overlapping, no gaps and, above all, no jealousies or factions. Experiment and experience have produced two co-ordinating bodies, the inter-departmental committee or Officers' Board, and the District Community Council, now called the *Dehat Sudhar Committee*.

I. THE OFFICERS' BOARD

At reasonably frequent intervals, according to local needs, and at least once a quarter, the Deputy Commissioner invites the local representatives of every department of the Local Government and the Government of India to meet him. There they discuss their problems and difficulties and thresh out a joint plan of campaign for the period until the next meeting. Any little differences between one department and another are settled, and by mutual discussion and arrangement each department sees how it can best help every other department, and so get

the best value for the money and effort spent by Government. Every department has a contribution to offer, and there is none that will not be the better for the help of other departments. No department can give help until its fellow-departments say what they want and no department can expect help if it does not tell the others what it is doing and where and how, and what are its difficulties. The day of water-tight compartments and of departmentalism is over. There is so much work to do and so little staff and money to do it with, that every official must do all in his power to find out what his brother officials are doing and to help them to do it. All this the Officers' Board makes easy and possible.¹

The procedure is simple and informal. It is probably best for some junior official to act as secretary of the Board. He extracts from all departments, well in advance of each meeting, a short note about their work programme, and their suggestions and difficulties. From these he draws up and circulates a rough agenda and a very brief progress report for the period since the last meeting. Minutes should be kept of all the important decisions reached at the meeting and particularly of all plans agreed upon for future work. Copies of the minutes should go to the representative of every department working in the district and he should send them to his superiors. In this way the divisional representatives and the heads of departments come to know exactly what is going on in each district and can in their turn co-ordinate their own efforts in such a way as to be most helpful to the district campaign. Nothing is more encouraging for the district workers, official and non-official, than to find that the higher officials when they visit the district know exactly what is going on

¹ See p. 221 n.

and are all out to back up the local programme. The chairman is, of course, the Deputy Commissioner, and his presence at every meeting is essential, but he may occasionally invite a senior officer of some other department to preside. To the Officers' Board, it is common to invite representatives of local bodies and also of the Boy Scouts, the Red Cross and local missionary organizations and any really conspicuous non-official worker or leader, provided, of course, that they are actively engaged in rural constructive work. Divisional Commissioners make a point of occasionally attending these meetings.

Once officials begin to claim exclusive credit for work done and to run down their colleagues, the villager stops working, as he begins to realize that it is not his good which is the objective but the personal advancement of individual officials. If the Officers' Board is carefully organized and developed, all this jealousy will disappear, and the district officials will soon be working loyally together as a team.

II. THE DEHAT SUDHAR COMMITTEE

The *Dehat Sudhar* Committee is copied from the Rural Community Councils steadily being developed in the counties of England by the National Council of Social Services. In 1923 the Ministry of Education introduced the idea to the Punjab, but except in a few districts, notably Jhelum, Lyallpur, Amritsar, and the Khanewal subdivision of Multan where they have a big roll of paying members, a budget, a policy, and a programme of work, the idea has not yet been fully exploited. The object of this association is to co-ordinate and develop every kind of philanthropic endeavour, both official and non-official, particularly non-official, and to make the very best use of everyone who has

any contribution—work, money, or ideas—to offer to the solution of rural problems. In a well-developed council there are four kinds of members.

(i) Ex-officio representatives of Government Departments.¹

(ii) Delegates from local organizations, official, semi-official, and non-official, engaged in social work, such as District Board, Red Cross, Boy Scouts, Soldiers' Board, missionaries (where they are engaged in other than purely evangelistic activities—e.g. medicine, education, or depressed classes), Girl Guides, Women's Institutes, etc.

(iii)* Paying members, including patrons and other superior classes of members who contribute special sums for special privileges.

(iv) Delegates from village associations and societies of all kinds which pay a small fee for affiliation.

The only real basis of a good *Dehat Sudhar* Committee is paying membership.² Where people's money is, there their heart is too, and without this test of enthusiasm for rural welfare, a council soon degenerates into an occasional gathering of people invited by the district officials. Once membership is by payment and is open to all who are willing to pay the small sum necessary to entitle the payer to attend the meetings, the council becomes alive. The members meet together to decide how to spend their own money, and with the help of experts to thresh out a policy and programme of rural reconstruction suited to the needs of their own particular district. The decisions of such a council command respect in the district as the voice of a real district panchayat. Simple rules of business are, of course, required, and it is advisable, in order to give all

¹ Many officials of course insist on joining in their private capacity as paying members.

² See p. 18.

members a chance of attending, to hold some of the meetings at various rural centres in the district. The first duties of a council are to collect members and funds, to draw up a programme of rural improvement, meeting by meeting, to make plans for its execution, and if possible to arrange for a village newspaper—either utilizing an existing one, starting its own or encouraging some other person or organization to start one—so that the fullest information of all activities and suggestions may be disseminated all over the district and thereby double value be reaped for all work done and money spent.

There is no need for the Officers' Board to collide with the *Dehat Sudhar* Committee. The Officers' Board is, as its name shows, an official affair, a cabinet council of officials, where they settle all their differences and discuss how they can help each other. Many of the members of the Officers' Board are, of course, ex-officio members of the *Dehat Sudhar* Committee, and the Board itself is a sort of official sub-committee of the *Dehat Sudhar* Committee. The *Dehat Sudhar* Committee contains every organization and every individual working for the improvement of village life. Besides being an invaluable meeting-place and forum of discussion for officials and non-officials alike, it is here that the actual programme of work is settled. By means of this council, officials, instead of deciding on their own what they think should and should not be done in the villages, can get the help of the best local opinion, and this council enables the villagers to put their difficulties and problems before the experts and get their advice. Government is enabled to apply its efforts to the best possible advantage instead of perhaps wasting time and money in doing the wrong thing, or in working in the wrong way or at the wrong time or place.

The council and the departments of Government must work hand-in-glove. The council programme and the departmental programme are the same, and with the limited staff and resources at the disposal of Government this is the best way in which the rural public can be got to devote their time, money and effort to the improvement of village life.

In the end it is the villager, inspired and assisted by all the expert advice and help that Government can give, who must say what is to be done to put village life right and who must both do the actual work and pay for it. The *Dehat Sudhar* Committee is the centre where this co-operation between Government and people can be best organized. It is advisable for councils to have branches in the tahsils, meeting frequently and actively engaged in carrying out the council's programme. One of the best ways in which a council can spend its money and efforts is in organizing publicity¹—shows, exhibitions, competitions, and tournaments, cinema tours, a weekly newspaper² and all the other things mentioned in the next chapter, so that its programme and its activities may be kept continually before the public.

In one Punjab district the tahsil is the unit and the district has a federation of tahsil councils. In another the council is a federation of village societies. It is not suggested that the above council is the only form of district organization possible, but it does create a forum where every suggestion can be raised and discussed. It enables the intelligentsia, and those social workers who are not rural magnates, in fact everybody of goodwill, to find a useful place in the scheme of village improvement. It enables money to be raised and publicity organized. Above all it is

¹ See p. 221 n., chap. xv and appendix v.

² See p. 215

an ideal centre where official and non-official can meet and where every kind of knowledge and experience, both local and expert can be pooled.

III. A MULTIPLICITY OF ORGANIZATIONS

A common difficulty is the multiplication of district organizations, such as the Red Cross, S.P.C.A., Prisoners' Aid Society, Health Centres, Boy Scouts, and so on. In many districts these are all supported by exactly the same people, so that every committee is merely a reshuffle of the same personnel, and the raising of the annual subscription means the continual dunning of the same people for various small sums of money. This is all wrong of course. There should be a sufficient number of good citizens to support every good cause with a different personnel. The good citizens are there all right, the villages are full of them, but we do not know how to tap them, nor shall we ever tap them until wireless and newspapers bring us into daily touch with every village, and until in every village there are associations and societies which will enable the villager individually and co-operatively to express his opinion and to pay his mite towards the good things he is taught to want but does not know how to get.

Meanwhile one solution of the difficulty would be to turn all these societies into sub-committees of the *Dehat Sudhar* Committee and to have a joint subscription covering them all. Thus if the full subscription were fixed at Rs. 10, Rs. 3 might go to the village newspaper, Re. 1 to the Boy Scout Association, Rs. 2 to the Health Association and so on. It is objected that this means a large annual subscription, but actually the members would pay no more than they do now. The trouble of collection would, however, be far less, and every one would know where they were, paying one lump

sum instead of for ever being asked for small sums for all manner of objects. Besides, membership of these various bodies is not for the rank and file, it is for the leaders, the educated and the gentry, and even in a period of low prices these must be ready to support any organization that promises active work in the fight against the various causes and effects of all the troubles which surround us.¹ After all, these subscriptions are nothing to the various items of unnecessary and often harmful expenditure which these same people are cheerfully paying.

This scheme worked admirably in one district except for one association whose provincial headquarters refused to accept as its local branch a sub-committee of the *Dehat Sudhar* Committee. Once provincial bodies, however, realized the difficulties of the districts and the benefits which such a scheme offered, they would probably be only too willing to modify the wording of their rules to allow them to affiliate district branches which adopted this form. Anyway, for those districts which feel the difficulty I have described, this solution is worth a trial.

Democracy depends for its success on three things :

- (i) Leadership.
- (ii) Unpaid service.
- (iii) Prompt and loyal obedience, particularly in the matter of working or paying, to the decisions of one's fellows duly assembled whether in village, town, district, or provincial capital.

These *Dehat Sudhar* Committees and the village councils and co-operative societies afford an excellent means of teaching and developing these three ingredients of success.

¹ See pp. 17, 18.

IV. RURAL COMMUNITY BOARDS

There is a small body at provincial headquarters called the Rural Community Board, but it does not in any way represent the district councils and is in reality an inter-departmental committee which meets occasionally to spend a small grant of Government money, principally on various kinds of publicity material.

When sufficient district councils of the kind I have described have been developed it might be useful to have a Provincial Council,¹ or Federation of District Councils, to which the District Councils would send delegates for exchange of experience and mutual discussion of common problems.

As in the District Councils the departments would send their representatives to provide expert advice and knowledge, and those provincial semi-official organizations which work among villagers would send delegates, so that all the rural reconstruction work of the province might be co-ordinated at provincial headquarters.

¹ This and District Councils are more fully described in *A Scheme of Rural Reconstruction*, 2nd edition. (Published by Uttar Chand Kapur & Sons, Lahore, and obtainable from Boy Scout Headquarters, P.O. Walton, Lahore.)

CHAPTER XV

PUBLICITY

SOME people hate publicity and propaganda and think there is something rather indecent about them. The word 'propaganda' certainly has a bad name, but that is only because of its very value and importance. An old Roman once said that the better a thing was, the worse it became if it was misused, and so with publicity and propaganda. They are a form of mass education and are particularly suitable for adults and for people who are illiterate. In fact once people have passed the schoolgoing age, by far the best way of teaching them new things is by means of well-organized publicity.

Another fallacy is that publicity is unnecessary or that there can ever be enough of it. This springs from the fact that its results are not directly obvious. Well-organized publicity greatly increases the amount of work done by each rupee of Government money spent on rural reconstruction. The neglect of publicity is therefore a very short-sighted economy.

Publicity is the preparation for the attack. If you go to a village that has never before heard of, say, better seed or vaccination, you will have to spend your whole time explaining what they are. You will then have to go away and leave the people to talk it all over and to let the idea settle into their minds. If in the meantime no one else comes and talks about these things, your next visit may be similarly spent in explaining things and answering questions.

Publicity will save all this waste of time and money. Where it is efficiently organized, when you come into a village and mention good seed, you are greeted with a chorus of, ' Good seed ! Oh, yes, we have heard all about that ! ' You can then start straight away on your particular piece of work and in one tour do what you could not otherwise do in several tours. Nor can publicity ever stop. The moment you stop, people think the work has stopped and they stop too ! The best-known manufacturers of boot-blackening, established for a century, had to wind their business up solely because they thought they were so well-known that they could save the money they were spending on advertisement ! Finally, publicity is a technical subject. It is one thing to have a message for the villager. To deliver that message effectively is quite another thing and the technique has to be specially learnt. All, therefore, who are trying to teach the villager new ways and to popularize new things should receive definite training in publicity methods and technique, and Government should organize its publicity just as carefully and systematically as it does its other beneficent activities.

Publicity takes many forms :

- (i) Wireless broadcasting.
- (ii) Magic lanterns and cinemas.
- (iii) Dramas.
- (iv) Songs and glees.
- (v) Gramophone records.
- (vi) The press.
- (vii) District newspapers.
- (viii) Coloured pictures and posters.
- (ix) Books
- (x) Other printed material—leaflets, posters, hand-bills, and pamphlets.

- (xi) Models and miniatures.
- (xii) Exhibitions, shows, *mêlas*.
- (xiii) Competitions.
- (xiv) Public meetings and speeches.
- (xv) Demonstrations.
- (xvi) Weeks.
- (xvii) School propaganda.
- (xviii) Model villages.

Never forget that until the women are interested in Rural Reconstruction progress will be slow and uncertain. Particular attention must be paid to their special needs and to the amenities of their homes. In all forms of publicity, therefore, special attention must be given to the women, as otherwise they are sure to be forgotten and yet they are obviously more important than the men for everything concerning the home. The women must have special days or hours, special shows and performances. They will want special pictures, special books and special newspaper articles.

(i) *Wireless broadcasting.* All modern methods of publicity aim at multiplying to infinity the power of transmitting a message, and are therefore peculiarly suited to the Punjab, with its vast numbers, its scattered villages, its shortage of roads, newspapers, and other means of communication, its illiteracy and the peculiar difficulty of reaching the female half of the population ; and the scarcity of trained teachers and instructors. Wireless and the cinema are perhaps the two best means of mass instruction yet devised. They appear to be expensive as they require a considerable outlay of capital and cost a fair sum to run, but their cost is very little indeed compared to their efficiency, the work done, and the size of the area they can cover.

We need not say much about the technical side of wireless. It has yet to be decided whether a few high-powered, or many low-powered stations are better for rural work. Perhaps both will be necessary. High-powered stations will send out a high class general programme as well as a rural programme. The low-powered stations will each deal with a dialect area and its special problems, but will use what they want of the high-powered station programme by means of land-wires. Really satisfactory receivers for village use have yet to be designed, and they are still far too expensive; the problems of running repairs and battery charging are also still to be solved. As technical knowledge and electrical power spread and the younger generation take more interest in these things and their fingers get more subtle, our difficulties will decrease. At present they are at a maximum.

The best kind of programme is now being worked out by trial and error. Long talks must be avoided, but the villager is not afraid of being told a great deal about crops and health and cattle and the many problems he has daily to solve. But the talks must each be short, bright and in a language he understands. A lot can be done by song and drama and dialogue, and these he will listen to by the hour. All sorts of warnings, news, information, and, of course, market prices, must be provided, and if only a small area is being served by a station, local news items including meetings, police notices, and official tours can be broadcast.

It is possible that the best way to interest the village people is for the announcer to make the whole rural programme his own, and, instead of merely introducing each item, to weave them into his talk, commenting on each song and speaker and breaking into the items where necessary

with question or comment to make them more intelligible and interesting to his listeners. When possible, the announcer should tour the villages where receivers are installed, so as to establish personal contact—personality counts nowhere more than in a village—to refresh his mind, to hear criticisms and to pick up ideas.

Government cannot possibly pay for a receiver and its upkeep in every village, as well as providing a programme, and neither can local bodies. The villagers themselves must help, and help they will as soon as they see the value of the service provided. The broadcasting of market news and market prices will very quickly make the people ready to contribute. Large landowners, co-operative societies, panchayats, schools and other societies will soon get their own sets, and elsewhere, perhaps with the help of an enabling law, villages will agree to pay a small wireless rate. Government and local bodies and villagers all working together will soon find a way to finance wireless—once the villagers are convinced that it is worth having.

(ii) *Magic lanterns and cinemas.*

(a) *Magic lanterns.* The magic lantern is still extremely useful, either by itself or combined with a cinema show; first a reel or two, then slides, then more moving pictures, and so on. The moving pictures help to collect and hold the audience. If no instructional films are available, entertainment films will do just as well. Slides are very easily made and coloured—coloured are far more effective—and with the help of a camera, a continuing series of fresh topical slides of local problems can be provided. The only difficulty of a magic lantern is that in villages it is invariably an after-dark affair and usually comes at the end of a long day. It is very well worth while, however, and the villager is quick to respond to those who take all that trouble on his

behalf. Most of the illustrations in this book are taken from recently made slides and a very large selection is now available in the Punjab.¹

(b) *Cinemas*. The first cost of these is rather high and good films are very hard to make. For the Punjab, at any rate until some better arrangement can be made, our best plan will perhaps be to hire a cameraman and stage the whole film ourselves. For teaching purposes, photography of actual scenes should be combined with cartoons. For instance, cartoons would make broad fun of those who farm badly or keep bad cattle, while good ploughing and the various breeds of good cattle would be shown by actual photographs. A good drama of village life with an 'uplift' thread skilfully woven into it would be invaluable both in the towns and in the villages, and some of the cost of making such films might be recovered by commercial bookings. Another form of drama is to follow the histories of two families, one which did, and one which did not, follow the teachings of the new life. To attract the people and entertain them between the instructional films it is probable that good silent films could be got very cheap from England with such subjects as the Royal Family, sport, travel, adventure, pageantry, science made simple, natural history, cartoons, and so on.

There is some doubt whether films should be standard size or sixteen millimetre. The latter cannot be enlarged, and will only serve a limited audience. Standard size are useful for all occasions and can, if necessary, be reduced. The running costs of a travelling cinema are much the same whichever size is used, and it is probably better to start with standard size. Time enough when touring cinemas are well established to try sub-standard outfits,

¹ See pp. 283-4.

travelling on mule back, or bullock-cart, for the outlying villages and hamlets.

Talkies, I fear, are out of our reach at present. The expense, the dialect problem and the difficulty of making them are too much for us. The best we can hope for is synchronized gramophone records of running comment, aided by loudspeakers.

A touring cinema should carry a magic lantern, an exhibition, samples of seeds, ploughs, ventilators, etc., plenty of posters and literature, and a keen and competent lecturer and demonstrator. The evening entertainment is followed next morning by an exhibition and a demonstration before the circus moves on to the next village. If local bodies, schools, co-operative societies, Red Cross, Boy Scouts, large landlords and every one else join together to organize and pay for a tour there is no reason why such a circus should not go on touring from village to village, six days a week and nine months a year. The shorter the marches between shows and the more continuous the programme the cheaper it works out. When people are making their plans for weddings and other ceremonies, why should they not apply for the travelling cinema and show (on payment of course), and include that in their festivities, together with a sports tournament to help to make things gay?

(iii) *Dramas*. These are the most popular and in some ways the very best of all means of spreading the light. Villagers love drama and will sit and watch it all night; most people love acting and the village lad is a born actor. The trouble is that drama, to be good—and we do not want to flood the villages with rubbish nor to make school-boy actors learn rubbish by heart—requires a good play and a good producer, and these are both very rare. Cinemas

can be had to order, dramatics cannot !^o Drama also involves a great deal of time and labour and the most careful and skilled supervision.¹ It is usually the schoolmaster and his pupils who stage dramas—and the best schoolmaster and the best pupils at that. All this takes away from school time and means late nights for all concerned. Much, therefore, as the boys love the fun of going from village to village with their play, dramas must be kept strictly within bounds and used as a special treat for big occasions rather than as a routine means of publicity. If grown-ups from district headquarters or country towns will form an amateur dramatic club and help the good work, so much the better. Professionals are best left out of it as they very rarely understand village ways and do not usually mix well with amateurs. A time limit should always be set, and the drama firmly closed down when it is reached. Otherwise the boy actors will not get enough sleep, and if the play is being staged in Fair Week, everyone oversleeps the next morning and the whole day's programme is late.

The cost of staging dramas is very small as very few properties are wanted if the play is really good in itself. The production of good plays requires special encouragement and organization.² Prizes must be offered, and when the dramas come in they must be scrutinized by experts and the best writers told what is wrong and how their dramas can be improved. Few people seem to realize that a drama requires very special skill and knowledge to put together, and that is why one sees so many very poor (and very long !) shows, held together only by the broad

¹ Could the puppet show be revived ? It should be cheaper than ordinary drama, and, well-staged, should have a very great appeal.

² The Commissioner, Rural Reconstruction, Punjab has a few selected dramas.

knock-about humour of one or two gifted amateur comedians. It is the same with acting and producing. If these could be regularly taught, a great improvement would soon be seen, as our schools and villages are full of latent talent which only wants training and developing to be very good indeed. An occasional teaching class, for the writing and production of rural drama, to which promising teachers could be sent, would be very useful. If a good teacher could be found he might be sent round to assist schools and clubs which want to stage drama, first by helping them to choose a suitable play, then to allot and teach the parts, and finally to supervise the staging and rehearsals. The weak point of all rural dramas is preparation. Everything, including rehearsals, is left to the last in the firm conviction that everything will go right on the day. Improvization and gagging are relied on to see every play through, but it would go far better and be far more useful if it was prepared and rehearsed to the last detail and then put over with a snap on the big night.

Another defect is length. All dramas are far too long and too diffuse and try to teach far too many lessons. Short plays—two on one night if you like with a different team of actors—and one lesson at a time are far the best from the teaching, and from every other, point of view. No play should ever exceed an hour and a half. If it is allowed to go rambling on hour after hour every one forgets what the point of the play was, even if it ever had one ! Clear, simple, short plays, with few and simple properties, carefully rehearsed and prepared are what we want for publicity purposes. Good dramas could probably be made largely self-supporting by playing to paying audiences in the towns in addition to the free rural shows.

(iv) *Songs and glees*.¹ These also are extremely popular and, if good, will be remembered and be sung as the villagers go to and from the wells and the fields. Here again the difficulty is to get good songs. Everybody thinks he can write and sing, whereas in reality good singers and composers are extremely rare. Unfortunately there is no such thing as a music master in our schools, and it is all left to chance. The lucky school with a natural singer, either pupil or teacher, will go ahead with its songs and glees, but even there the singer may be no poet ! As with drama so with songs. Prizes must be offered and songs collected and printed, and schools should be forbidden to sing any songs that have not been passed by the district educational authorities. It is unfair to make children learn rubbish by heart, but they will be grateful all their lives for having committed good songs to memory from a good school song book.

In some districts, glee parties are formed at certain seasons of the year and go from village to village. These wandering minstrels sing their own compositions, and naturally one at least of a successful party is quite a good composer. All he wants is the material, so give him the detailed points of the 'uplift' programme which is being pushed at the time, and a small reward occasionally, to whet his whistle, and he will go round singing your stuff along with his own.

Competitions and festivals and *mushairas*² for songs, glees and dialogues are a profitable way of entertaining people during fairs and shows. They spread the light, and encourage performers and composers.

(v) *Gramophone records*. These are a great standby, and as long as the song and the tune and the singer are

¹ See iv, pp. 285-7.

² Symposia of poets.

first-class there is no limit to their possibilities. Two dozen double-sided records of uplift songs have already been made in the Punjab and more are to follow.¹

They can be on sale to all and sundry, be kept in schools, and be used to entertain crowds at *mêlas* or to collect audiences for meetings or exhibitions.

(vi) *The press.* One of the greatest obstacles to the progress of the work is the ignorance and indifference of the general public. The greatest possible use, therefore, should be made of the daily and weekly press whatever its political shade. Newspaper publicity is of two kinds :

(a) News items and short paragraphs. These are by far the best forms as long as they are kept as such and there is no attempt to add a moral or suggest official inspiration. By a news item is not meant a statement that a popular officer has given a tea-party ! That will not help. But if the public read that a Boy Scout dived into a river and pulled out a drowning woman and the Ambulance Section on the bank applied artificial respiration and brought her round, they will say to themselves ' Then they are some good after all.' Or, the prize at a certain dairy show was won by a co-operative cattle breeding society with a cow giving a daily yield of twenty seers. Or, the maternal mortality in a certain town has fallen from ten per cent to three per cent since the Health Centre was opened. The more of these items that appear, the better, and all workers must be encouraged to collect them and send them either direct to the press or to the Government publicity agency. In the latter case, no time need be spent in preparing them for publication. Notes, diaries, cartoons and pictures, snapshots with a note scribbled on the back, newspaper cuttings, stories, dialogues, poems, all are welcome.

¹ See pp. 285-7.

(b) The second kind of newspaper publicity is the longer article. This is less valuable, but, if not too long and signed either by an acknowledged expert or by someone who is known to be a good writer will certainly be read. The public love personalities, but long articles contributed by Government or by a government department as such, unless exceptionally well written, are less likely to be read. Few Government servants with the necessary knowledge and keenness have the time to write and fewer still have the skill. Experts, therefore, and good writers must be encouraged to write and in the public interest must be allowed to put their names to their work, even though this may involve the risk of a little self-advertisement.

(vii) *District newspapers* are a great problem. For the proper conduct of a local campaign of Rural Reconstruction a local weekly newspaper is an absolute necessity, and yet it is very difficult indeed to get one that is satisfactory and self-supporting.¹ To be self-supporting a newspaper must be really good, with up-to-date news and well-written articles of a general nature as well as attractively written uplift teaching. All this requires a highly trained staff, which is very costly and very hard to get. A newspaper that relies on schools and on a few rural gentry to buy it, not because it is worth reading but out of public spirit, will not last long and will never fulfil its purpose of spreading information. Advertisements will help the finances, but to get many and continuous advertisements, a big circulation is essential, and that will only come if the paper is worth buying on its actual merits. There is no rural reading public and this has to be built up, not by scurrility, obscenity or sedition, but by genuine reading matter of the

¹ See p. 200. The *Dehal Sudhar* Committee is the proper organizer of the village newspaper.

best kind. Until a sufficiently large reading public is built up for separate papers to be issued for each subject and interest such as health, farming, children, domestic affairs, etc., the rural paper must have special stuff for everybody, boys and girls, soldiers and ex-soldiers, farmers, artisans, housewives, and every other kind of person. Local news and local information must be very complete—tour programmes, coming meetings, fairs, shows, and auctions. The local officers of all the departments must help to fill its columns. Everything that now goes to the tahsil 'for wide publicity' must go into the newspaper instead, and it must become the one place where the details of all coming events can be found. Full warnings and advice on all subjects of rural interest and importance must, of course, be there, and then the press of the world must be culled for articles of interest about sport, adventure, travel, heroism, royalty, science written simply, and general knowledge of all kinds from pearl-fishing to skyscrapers. In this way the ex-school-boy, the ex-soldier and all those with inquisitive minds will be caught, in addition to those who require the contents of public importance, and a reading public will be slowly created.

If the newspaper world will produce a suitable 'farmers' weekly'—later on a daily will be wanted but a 'weekly' will be ample to start with—so much the better. It will at once get the patronage and encouragement of the schools and all the uplift agencies and societies. Until then we must struggle along as best we can with our present newspapers. If there was a demand for it and money could be found, a lot of help could be given to district newspapers by sending the centre pages ready printed from provincial headquarters, on the lines of the English parish magazine. These centre pages would contain all the news, provincial,

Indian, and world, in addition to well-written articles of every kind, uplift, general knowledge, humour and everything else. It would be a complete newspaper, and all the district would do would be to add the cover and title with its own special items on the insides of the covers or on any other pages it wished to insert. To make this a success all district newspapers that joined in would have to be of the same size and shape and publish on the same day. If the trade does not come to our help soon this will be far the best and cheapest way of providing district newspapers, as the present system, by which subsidized newspapers of varying merit appear and disappear, is far from satisfactory.

An alternative to this would be to send budgets of news and articles from provincial headquarters for district newspapers to select from and print. This would be far more expensive as it would mean separate printing in every district.

A commercially run village newspaper could easily be combined with the existing local newspapers. The local *Nai Zindgi*, *Islah*, or whatever it was, could print for itself a supplementary page or two of purely local stuff, and either slip it into the provincial newspaper before distributing to its subscribers or put it outside the provincial newspaper as an extra cover.

Anyway, whatever form it takes, a village newspaper is absolutely necessary for the efficient running of a district and for the spread of the 'uplift' programme. Information takes weeks and months now to reach remote villages, and we cannot hope to get a real 'movement' going until that time-lag can be reduced to not more than a week at the outside.

(viii) *Coloured pictures and posters.* Business firms do not spend large sums on coloured advertisements for

nothing. Coloured pictures attract every one and should be widely used for our campaign. There are two kinds :

(a) *The wall picture*,¹ which should be a beautiful piece of art to hang inside a home or school. There is a big demand for them now in villages where the light and air campaign has brought daylight into the homes. Previously the only patch of wall that seemed bare was that opposite the door, and that was invariably decorated. Now all the walls look bare, and everywhere I go I see efforts being made to decorate them with pictures, advertisements, calendars, coloured paper, coloured clay ornaments, polished utensils and so on.

Although money would be wanted at the start, the picture industry would soon be largely self-supporting as there is a genuine demand for bright pictures in all village homes which have let in the light. Production would naturally have to be on a scale which would admit of low prices, and wide publicity would be wanted to assist quick sales. If local bodies and institutions and co-operative societies used them freely to adorn the walls of schools, hospitals, etc., and they were distributed as part of prizes and rewards they would soon begin to be known. It is the housewife who will buy them, and it is to her notice that they must be brought.

What a chance for bright and pretty pictures—the housewife is very tasteful, so please do not insult her with nasty, tawdry stuff ! We want good pictures of home and village scenes suggesting—nothing more—the new village life. Good pictures are very hard to get, as good painters do not seem to know either our Punjab villages or our uplift programme, and those who do know the villages cannot paint ! This difficulty, however, can easily be

¹ See pp. 32, 53.

overcome by the offer of good prizes for the kind of picture we want.

(b) *Posters.* These are wanted for verandas and for other protected outside wall spaces. Many of them will, of course, find their way into cottage homes, but their main use will be to adorn the walls of schools, hospitals, post offices, railway stations, offices, notice-boards, and all other such places where the public daily come or pass by. Their meaning must be immediately obvious to the eye of passers-by and they must be intelligible even to those who cannot read. They must be bright and, of course, beautiful. Here again the offer of prizes will soon bring us what we want.

Both these kinds of publicity cost money, but are well worth it. They serve a double purpose, popularizing the better homes movement and brightening the places where they are hung.

There is no reason why we should not get help here from firms which want to advertise their goods in the villages. Many calendars and advertisements have bright and pretty pictures on them, and I dare say plenty of firms would be glad to use a picture we suggested as long as it was attractive enough for their purpose, and if it is not good enough for an advertising firm, it is not good enough for our business either !

The common faults of posters are that, instead of advertising the new good thing they intend to, they advertise the department which designed them, or else they rely on a lot of print—and small print at that—to explain their object. The name of the department and any instructions we wish to give can come in a corner of the sheet, but the fewer explanations the better. The picture must explain itself, and ' itself ' must be the general lesson we wish to teach and nothing else.

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Posters are too expensive for such exposed places as outside walls. For them the best thing is probably the slogans which are already so common on village walls, and every department should invite the schools and whoever else writes them up to make as much use as is reasonably possible of any of their walls which are conspicuous to the public.¹

(ix) *Books.*² As for books, there is no reading public at present and so they are very rarely of much use unless they are good enough and important enough for schools, teachers, Government officers, missionaries and the army.

(x) *Other printed material.*³ In the illiterate state of our villages, printed stuff has only a limited value, but as we cannot visit every village every day, it is essential to print handbills and notices and occasionally leaflets and pamphlets, so that those who can read may know the exact details of what we are teaching and pass them on to their neighbours. It is most distressing to see the woeful ignorance displayed by so many workers, official and non-official, of the exact detail of each of the many simple reforms Government is seeking to bring about in living and farming, and anything which will increase the knowledge and therefore the value of those whose duties bring them in touch with rural people is all to the good.

There are in the Punjab 35,000 villages, 9,000 patwaris and nearly 10,000 schools, 25,000 teachers, doctors and compounders, 23,000 co-operative societies, and several thousand zaildars and inamdars to say nothing of thousands of post offices, railway stations, courts and offices frequented by the rural public. That, with spares for replacement, meetings and shows, means that we want at

¹ See p. 229 (xvii).

² See pp. 279-82.

³ See pp. 277-8.

least 150,000 for each issue of each simple handbill or notice that is of general application. Fortunately, vernacular printing is very cheap and it would obviously be extremely useful if every one of the above-mentioned people and places had at least one copy of the simple instructions for each item of our village programme as they are issued.

There is also a demand for a fair quantity of stuff printed in English to explain things to inquirers, for the army and for the press, and to save endless talking and writing.

Care and ingenuity is required in organizing the distribution of printed publicity material. Otherwise little value will be got for it. The issue to individuals, offices and institutions must be so arranged that there are no omissions, spare copies for distribution and to replace casualties are wanted, as well as 'repeats' at reasonable intervals. Batches of material are required for fairs, and all kinds of meetings. At such places as post offices, railway booking halls, and offices they should if possible be strung up in batches for people to 'please take one'. Here, of course, replacements must be arranged. Then there are innumerable places, such as markets, roadside halts, *sarais*, churches, and other religious meeting-places, where, by arrangement, our notices can probably be posted in sheltered spots. Replacements here require particular attention.

Rural Reconstruction should have a universal application and a universal appeal and the details of how the people can improve their ways of living should be universally known. The efficient distribution of literature, the extension of its scope and the improvement of its organization, therefore, is a problem demanding continuous attention from all persons and organizations concerned with Rural Reconstruction.¹

¹ The Officers' Board and the *Dehat Sudhar* Committee are particularly responsible for this work. See pp. 195, 197.

(xi) *Models and miniatures.*¹ People like seeing things in the round, and it is much more easy to teach people how to fix a ventilator or how to put a well right with an actual model than by any amount of talking. Wherever possible, therefore, actual models of the things recommended should be made, both for permanent exhibition in some central place and for touring officers and rural shows. With a little ingenuity they can be made light and portable.² Three-ply or five-ply wood is extremely useful here and the miniature good and bad villages used in the Punjab with their little dolls and toys to represent people and cattle, trees, flowers and village equipment, always draw large crowds.

(xii) *Exhibitions, shows, mēlas.*

(xiii) *Competitions.*

(xiv) *Public meetings*³ *and speeches.*

These we may take together. All forms of public demonstration are valuable. Villagers like coming together, particularly if there is a sports programme to attract them—wrestling, tent-pegging, athletics, *kabaddi*, *pirkaudi*, football and other games—or if there is any hope of a drama or a cinema or even a singing party. If the great ones of the district or from outside attend, the villager is still further

¹ See pp. 288-9.

² Ibid.

³ Rural Reconstruction is now so important that press correspondents and news agents often attend meetings, and sometimes publish very garbled accounts of the speeches. It is advisable, therefore, for the principal speakers to write short notes of what they are going to say and hand them over to the press agents at or before the meeting. These notes should not attempt to give a résumé of the whole speech as that would be too long for publication and will result in either a further résumé being made or in extracts being selected by the press for publication. In either case the reader will have little idea of what the speaker said or meant. The best way is to put down a simple and concise description of one or two of the most important lessons which the speaker wishes the public to learn and to leave out all the rest.

pleased, and the greater the occasion becomes, the more important he thinks the object must be for which the gathering is organized. These meetings must be held as far as possible in the villages themselves for the convenience of the villagers rather than in a big town or at district headquarters. Many small village shows are better than a few big headquarters shows, although these, too, have their value if the prizes and entertainment offered are sufficient to attract more than just the local people and live-stock.

(a) *Big fairs.* The lay-out of a fair should be so arranged that the crowd, while going to and from the popular shows—sports, stock judging and so on—must pass through the exhibition of seeds, ploughs, health, good and bad cattle, etc.¹ If the exhibition is put away in a corner, very few people will see it. The exhibition should be in two parts, a popular general show of all the important items of the 'uplift' programme which are being taught at the moment, and a technical exhibition of the more advanced stuff for those who are interested. If the two are mixed up, the general public crowding in will make it impossible for the technical staff to deal with advanced inquirers, and the attention of the public themselves will be diverted to stuff which is too advanced for them, and they will neglect or forget the simple lessons they ought to learn from the popular side. The popular side can be demonstrated by Scouts, and schoolmasters, trained and supervised by the departmental staff, which would thus be left free to explain the more advanced exhibits. The exhibition must be well advertised and well displayed. Big flaming posters and banners, gramophones and glee singers are all fair means of attracting the crowd.

The language of the locality and the needs of the locality

¹ See pp. 101-2.

must be the sole consideration of the organizers of the fairs, and any tendency to play up to important visitors and neglect the local people must be rigorously banned.

In a similar way the time-table of events must be very carefully arranged. You do not want a big climax on the last day with crowds so big and unwieldy that they can learn nothing. Steady crowds every day are what is required, just large enough to keep the demonstrators busy all the time—remember to have relays of demonstrators as no one can shout and talk all day on end or even for half a day. The popular events, therefore, like games and tent-pegging, must be dotted about in the programme so that each day there is a special attraction. As soon as the sports are over the crowds stream away home. They must therefore be put not before but just after the important instructional event of the day, such as cattle judging or ploughing matches, so that while people are collecting and waiting for the sports they cannot help seeing and hearing something useful. Parades of winning stock must be held during intervals of games and sports so that all may see the good beasts and applaud the breeders. The important cattle prizes are always far too small, so make the most of them. They must not be given in a hole-and-corner way, but in full durbar, and every honour must be given to the successful owners. One long dreary prize-giving must be avoided. Give the smaller prizes the moment the judging is over and hold a short durbar every day or on several days for the bigger prizes. These durbars can be 'featured' with songs, speeches and other attractions, and the great man who gives away the prizes can be different every day. Don't collect your great ones all on one day. One big visitor is quite enough for each day. Spread them out over your show so as to make the best use of them. To the

great ones I would suggest that before going round the fair they should ask the organizers what are the principal lessons the fair is intended to teach and then take an obvious interest in those exhibits which try to teach them. Don't spend half an hour discussing American cotton at a fair on the top of the Salt Range !

It is no use waiting nine or ten months and then relying on your memory of last year's fair for improving your fair from year to year. Each day of the fair, keep a careful note of the mistakes made and improvements suggested, and immediately after the fair is over, draw up your plans for next year. In this way only will you make it better each year.

(b) *One-day shows.*¹ One-day shows in important villages are extremely useful, and they should be held all over the district, carefully spaced out so that every village can attend one fair and get its cattle there and back without spending a night on the road. If this is done even small prizes will attract exhibitors, and for the grading up of cattle and the general encouragement of better farming and everything else these small fairs are of very great value indeed. They wake up the countryside and bring it home to all and sundry that Government is out to help, and they teach the simple ways in which people can help themselves.

The programme is simple—a small exhibition of good and bad cattle collected from the neighbourhood, simple health, agricultural and other uplift shows, stock and crop classes for small prizes. Then games and sports, a few speeches and then prize-giving² with a cinema, magic lantern, and wireless programme to end the day. The cheapest way of

¹ See p. 101.

² Don't give the prizes before the speeches or you will lose most of your audience !

organizing these shows is to make up a small circus and send it from centre to centre in charge of someone who can demonstrate the simple items of each departmental programme—there is nothing complicated about this sort of show, only just the actual seeds, cattle, methods, etc., which you want the people in that particular locality to see and try at once. The local departmental officers keep an eye on these shows and turn up from time to time, but with one expert in charge, local helpers from the schools and villages, and a trained man for the lantern, cinema, and wireless, a very successful series of small shows can be run costing only from Rs. 100-200 each. A special effort should of course be made to turn the village where the show is held into a model so that it too may be part of the uplift demonstration.

Existing *mêlas*, religious and other, should be made full use of. Stage the circus as one of the side-shows, put up posters, distribute handbills, send round singing parties with banners and all the usual outfit. The same programme will do as for village shows except that no money or trouble need be spent on games and sports to collect the crowd as that has already been done for you.

Competitions. Prizes and cups for the best zail, best village, best *pakka* house and best *kachcha* house will produce very keen competition. The marking system should be published in advance. The first year it will be very simple—say, pits, ventilators and well-tops—but as it develops, every item of the programme can be included until marks are given for sending girls to school, flowers and sewing-machines in village homes, stud bulls, cotton sown in lines and every detail of the programme. Judging is long and difficult, but it is very well worth while. Car-loads of judges go from village to village eliminating and

eliminating until a few of the very best are left for the inspection of the final judges. To make things a bit easier, the putting in order of the road connecting the village with the nearest trunk road should be an obligatory part of the competition. If possible secure ladies to help in judging. The villagers appreciate this very much and it enables the village women to profit by the competition.

Prizes for seeds and crops are useful, but as far as possible insist on whole plants being shown, both for demonstration purposes—a five-foot wheat plant with a score of tillers is far more impressive than a saucer full of seed—and to ensure that they are home-grown and not bought.

Athletic sports and village games are a most important and popular item of the rural programme, both for their own sake and for the fillip they give to all the rest of the work. They are best encouraged by organizing tournaments. These should be developed until first comes the zail, then the tahsil and finally the district or Olympic tournament. As soon as possible registration of village games clubs should be made a condition of entry so that the organization of games may be steadily improved.

(a) *Ploughing matches.* For ploughing matches, mark out the ground very carefully beforehand and settle how marks shall be given. The main thing is that a properly turned, pulverized, and level bed should be left by the plough and the principal marks must be given for this. Great speed is not of importance ; it must not be so great that it would tire the bullocks before their daily job is done or so slow that the work would take too long to finish. Cruelty, roughness and failure of the ploughman to control either himself or his team must be marked down. A common fault is to expect ploughmen to plough right up

to the edge of the field and drive their oxen over the field bank. This is quite wrong. Field banks are crumbled and washed away and blown away quite enough already without being trampled down by bullocks at every ploughing or harrowing. The furrow-turning plough should come out of the ground just before the front feet of the oxen reach the field bank, and the strips or 'headlands' between the plough and the bank at each end should be ploughed across when the field is finished. Headlands are important and it is essential to teach the difference between the working of a furrow-turning plough and the *desi hal*.¹ The furrow-turner must come out of the ground at the corners and not be driven round in the ground like the *desi hal*; otherwise the land will be left all lumpy and uneven at the ends and corners.

Spectators require careful controlling or they will overrun the field and interfere with the cattle and ploughmen and trample on the ploughed land and so spoil the competition. They must be kept well beyond the farthest point reached by the bullocks in turning. Be sure and collect the people before ploughing starts, by beat of drum and by singing parties and other devices, so that as big a crowd as possible shall see and take an interest in the match.

The strips of land for each ploughman must be sufficiently separated for the cattle not to interfere with each other. If two heats can be ploughed in the same field, use alternate strips each time. Ploughmen must have large cloth numbers on their backs so they can be identified from any part of the field by the judges, and the judges need not know their names. Get impartial judges from outside if you possibly can and keep everybody, including stewards, committee members and departmental officials well away

¹ Indigenous wooden plough with iron point.

from the judges, or you will soon have grumbling, and complaints of bias and unfairness ! Your farmer will not stand for what he thinks is hanky-panky !

(xv) *Demonstrations.* Demonstration farms belonging to private individuals and village associations are now getting quite common in the Jullundur Division but are rare elsewhere. These are perhaps more convincing than Government farms, as no one believes that a Government farm is run on business lines and without extra canal water and other advantages. Demonstration plots are organized all over the province by the Agricultural Department, in which the cultivator agrees to farm a certain plot in exact accordance with the instructions of the department. These and the demonstration farms should be visited by schools and by touring officials whenever possible, so that the village people may realize their value and importance and the best use may thus be made of them.

(xvi) *Weeks.* Health weeks, rat weeks, and so on are good if they are really well organized, but if they are slackly run they are worse than useless. As the district staff has to organize them it is probably better to have a different week in each tahsil for the special effort, so that the district staff can tour in tahsil after tahsil instead of having to dissipate their efforts over the whole district for one single week.

As soon as possible, Health Week must become the six-monthly 'spring' cleaning, and one day a week must be agreed upon for the maintaining of a high standard of cleanliness in the village.¹

(xvii) *School propaganda.* Schools are great advertisers within and without their buildings. This sort of work teaches the children social service, and in writing up the fresh slogans and designing the new posters they must

¹ See p. 268.

study their subject-matter. It is suggested that the school should stick to one item of the rural programme at a time, taking each thing in its season, and flood the neighbourhood with it, on the lines of the 'weeks' which are so popular nowadays. For instance, during cotton sowing time, the schools for a whole month would broadcast 'sow cotton in lines', in every way they could, by song, slogan, poster and procession. When cotton sowing was over the slogans and posters would be wiped out or removed and replaced by whatever had to be done next in that locality.

There is no doubt that far more use should be made of high schools and colleges for teaching the simple things that every Punjabi, whether townsman or villager, should know for his health and welfare.¹ Rural Reconstruction is the art of living in a village. There is an unreasonable objection, however, on the part of some educationists to the inclusion of the simple rules of hygiene and better living in 'higher' education. For some unexplained reason, better living is not a 'cultural' subject. What forsooth is the difference between culture and better living? Can a poor country afford to omit from its educational system the simple knowledge of how to improve the health, wealth, peace, happiness, and general well-being of the people? One possible reason why traditional education fights against the new light is that owing to the appalling squalor of village life the first big struggle was to secure cleanliness and clean habits, and the educationist refuses to descend to the detailed pursuit of cleanliness! But cleanliness is not an automatic accompaniment of education! Is not the absence of cleanliness the negation of culture and education, and can there be cleanliness without teaching the young the exact detail of how to achieve it?

¹ See p. 12.

(xviii) *Model villages.* There is not much to be said for model villages. They absorb the time of the departments, no one goes and looks at them, or if they do they immediately say that special money and special staff was concentrated on them and therefore until Government will do the same for their villages nothing can be done—and so on and so forth. Meanwhile, while the model village is being prepared, the rest of the district heaves a sigh of relief, prays that its turn may never come, and does nothing. The model village may develop unexpected difficulties and obstinacies and never become a model, or by the time it is ready the promoters may have moved on and interest has been lost. If model villages are prepared, work should only be concentrated on them for a few months. The workers should then move on to another set of villages, keeping an eye on the previous models to prevent them backsliding.

(xix) *Conclusion: a general attack.* The best way to proceed is to attack the whole district, so that no one can sit idle and watch other people being reformed. One thing will take on in one village and another thing in another. Exploit the successes and use each success both to lead to other successes in the same village and to shame other villages to do likewise. In this way practical experience and knowledge of the carrying out of each reform, of what it looks like when carried out, and what it leads to will be obtained somewhere or other in the district, news of it will spread, and other villages will copy it. It will be a very long time before every reform can be seen in working order in one village, but there is no reason why every reform should not quickly be seen in some village. Nothing succeeds like success, and the contagion will spread if everybody is put on the defensive and kept busy by a

general and vigorous assault upon the whole standard of living and farming throughout the whole district.

The whole district programme is a big demonstration of what better farming and better villages should look like and it must be maintained and developed until the people learn, and are organized, to do it themselves on their own and for their own sakes. This will come about when all this business becomes the common knowledge of every man, woman and child in the village, when in every village there are organizations to administer the village and every villager is a member of one or more co-operative societies for his production, marketing, finance and everything else, when every village housewife belongs to a Women's Institute or whatever other societies are found most suitable to teach and practise thrift and homecraft.

Till then everything in this chapter must go on at full pressure, and even afterwards it will go on, as there will never come a day when we can sit back and say there is nothing new to teach the village and nothing new to learn, to make home and farm and village brighter, happier, healthier and more prosperous !

CHAPTER XVI

RURAL FINANCE

EVERY farmer requires capital. In the county of Norfolk in England, it is reckoned that £10 of capital per acre are necessary to farm properly. Far less is wanted in the Punjab, but even so, far too little capital goes into the land of the Punjab. And yet the farmer is sunk to the eyes in debt. Alas, he borrowed, not to develop his land but for domestic and social, that is, for unproductive, purposes.

It is a common thing to run down moneylenders and say that they are a curse, and what not else. But although the necessity for credit has been exaggerated, there are times when the farmer needs it and needs it badly. A rural credit organization there must be and hitherto it has been principally provided by the moneylender. But money-lending methods and rural finance generally, just like farming methods, are out of date and require modernizing.

The ideal method of financing and organizing small-holders, and villagers generally, is the co-operative system ; and that requires steadily developing until every farmer buys, sells, and when necessary borrows, through his co-operative society.

1. **The present system.** The main defects of the present system of village finance are :

(i) The moneylender lent largely for unproductive purposes instead of confining his business strictly to financing agriculture and developing the countryside.

During the boom, when his capital was rapidly increasing, he debauched the cultivator with loans for any and all purposes, instead of developing rural industries with the capital not wanted for the land.

(ii) Moneylending tends to become mixed up with personalities and parties and there is already far too much feud and faction in the Punjab village.

(iii) The accounts are kept in what is to all intents and purposes a cipher code.

(iv) The borrower is tempted to borrow for all purposes, whereas borrowing should be confined to productive purposes, farming and land development, and to other absolute necessities. Domestic and social needs should be met not by borrowing, but from slowly accumulated savings. In all prosperous countries, saving and thrift are the mainstays of home life, indeed these are some of the main causes of their prosperity and so they must be in the Punjab. Not a penny more must be spent on a wedding or a funeral than has been saved up for the purpose. Once borrowing starts, there is no limit, and a social ceremony, instead of being looked forward to and saved for and then thoroughly enjoyed as the reward of thrift, is looked back to as the beginning of a family's ruin. Savings are the only possible mainstay of a high standard of living.

(v) Moneylending is expensive. Each individual firm is quite small and as the business is done with so little discrimination the rates of nominal interest have to be high. As a result of these high rates repayments are very irregular and there is far too much appeal to the law courts.

(vi) The villager buys everything on credit and runs an account from harvest to harvest. When people have to pay cash they look both sides of every rupee, and think twice before they buy at all ; but no one bothers about the price

of anything if it is merely written up against him. The villager buys and borrows from the same shop and sells his crops there. This mixture of moneylending and shop-keeping is fatal for the borrower and buyer. Running accounts mean lifelong debt. The villager must learn to keep money and to pay cash for everything except the genuine financing of his industry or whatever else it may be by which he earns his livelihood!¹ The farmer's wife must pay cash too. Her present custom of barter is terribly wasteful. The handful of cotton or grain which she exchanges for her daily needs is neither weighed nor priced and she perhaps gets less than half its value for her bargain. Once she can read and write and keep accounts—but not till then—she will hold the family purse,² as in other countries of smallholding cultivators, and then and then only will our villager's finance be sound.

Without either insurances, a savings bank or a co-operative bank account, the Punjab farmer is nowhere.³ If you ask him to save, he says he will do so when he has money to spare! The truth is the opposite. Until he saves he will never have money to spare, and until he opens an account, he will not begin to save. Familiarity with the savings bank and with the routine of saving should be taught in every school, college, Boy Scout troop and army unit, until it becomes second nature. Without an account already open, a desire to save and a pride in saving a surplus

¹ But for the ease with which laws are evaded, one is tempted to suggest that credit accounts should be outlawed, and that no suit should lie for a running account!

² See p. 129.

³ While revising this chapter, I was called to a village fire and found the produce of sixty acres of good wheat in flames—the food supply of a dozen families! We talk in England about saving for a rainy day. In the Punjab there are a dozen calamities to save for, hail, fire, floods, drought, plague, locusts and other insects and pests innumerable.

is impossible, and no increase in prices or crops leaves a villager permanently better off than before.

(vii) Debt is a most insidious and demoralizing thing. Debt-ridden people cannot raise their standard of living. Debt is no incentive to hard work or to better farming. On the contrary it is the direct opposite, as the debt-ridden man knows that all the results of any improvement he makes will go not to himself but to his creditors. Once a man is in debt, he sees no chance of recovery, hope leaves him, all desire for improvement disappears, he goes on borrowing more and more, and that is the end of him as a progressive independent self-respecting and self-supporting citizen.

It is often complained that the villager's credit must not be reduced. No, not for productive purposes perhaps, but it would be a grand thing if his credit for unproductive purposes could be reduced to nil and if he could be prevented from borrowing from more than one source. The villager is always making the excuse that he cannot cut down his expenses, as he is compelled by custom to spend a certain sum on family ceremonies. What a blessing it would be if he was unable to borrow a penny. What a premium it would put on thrift and saving! Even for productive purposes a limit to credit would be no bad thing, but legislative interference is of little use as such laws are too easy to evade when both parties to the loan want to do so. What can be done with people who seem so incapable of looking after themselves? Self-discipline, rather than credit, is the villagers' first and greatest need!

2. The future. Village finance requires a complete overhaul. The following are essential elements of any system of finance for smallholders, but the first and biggest essential of permanent release from debt is character—

strict integrity and a capacity for self-denial², self-sacrifice, hard work, self-help, and mutual help.

(i) Co-operative finance for farming and land development and for such stark necessities as medical aid and education. No borrowing except from the co-operative society.

(ii) Cash payments for everything else.

(iii) Thrift and saving up for all purposes, and particularly for social and domestic expenditure, which must be financed solely from savings.

(iv) No debt. We must go back to the 'poor but honest' ideal, where debt is almost a sin and the debtless man is proud and independent.

(v) The housewife must hold the purse, and give up barter entirely for her daily needs.¹

(vi) Accounts must be kept in the common script of the countryside and not in a cipher code.

(vii) A system of banking which will enable the farmer to sell his crop in the *mandi*,² the pensioner³ to draw his pension and the lambardar to pay his land revenue and canal dues, without carrying bags of money up and down the country.

(viii) By means of saving and banking the farmer must become so reasonably independent and solvent that his next meal is never in danger and one flood or hailstorm cannot reduce him to starvation.

3. Old debts. So much for the future. What about past debts? Several things are obvious.

(i) At present prices and with debts at their present nominal totals the average zemindar, whether landlord or

¹ See p. 129.

² Market.

³ Pensioners have often told me how quickly the cash pension payment burns a hole in their pockets!

tenant, is technically bankrupt ; that is to say, he cannot possibly meet his liabilities in full.

(ii) He must be kept on the land.

(iii) He must be able to live a reasonable life and bring up his family, and he cannot live for ever on a minimum subsistence, as a perpetual debt-paying serf. This is bad for the farm, the farmer and the capitalist. There must be a possible end of debt, within a reasonable time, for the farmer who works hard and well.

(iv) The farmer must even have some ambition for a higher standard of living, which by thrift and hard work he has a reasonable chance of achieving and maintaining.

(v) Credit and capital are necessary to the business of farming, and even if the moneylender disappeared, he would have to be replaced by an equally efficient organization. As a matter of fact he is unlikely to disappear as he has a shop as well as a bank. Another possibility would be amalgamations of rural moneylenders operating over wider areas at lower rates of interest, but this is equally unlikely to come about.

(vi) Most creditors do not desire a final settlement of their debts, but only some arrangement which will enable them to restart business. Those who wish to withdraw from the business are already settling up as best they can and moving to the towns.

(vii) By far the greater proportion of all rural debts were contracted for unproductive purposes and not for the genuine necessities of living and farming. Instead of looking round for new means of using his capital, such as the development of rural industries, the moneylender, during the times of high prices, encouraged the borrower in luxuries and extravagances so that his expanding capital

might find investment. The lender lent with his eyes open, and of his own free will. Some accommodation between the two parties therefore cannot be described as confiscation, as debts not incurred for necessity are obviously entitled to less consideration than those which are, and the writing down of capital is a normal procedure all over the world during times of depression.

(viii) The present crisis, although not immediately due to any fault of the creditors and debtors, is ultimately due to bad lending and bad borrowing, and was bound to come the moment the post-War period of high prices came to an end. Even if the boom had continued, nothing could have prevented a crash sooner or later except the education of the people in principles of thrift, better farming, better living and better business: and a boom is a bad time to begin teaching such things.

(ix) All this capital came out of the land, is part of the land and part of the system of Punjab rural life, and cannot be thought of otherwise. If agriculture slumps, capital must slump, and the capitalist has no more right in slump times to claim repayment of capital at boom rates than the farmer has to sell a bumper crop at the high rate he paid for seed.

(x) At present prices, the old rates of interest are too high and the old terms of business require revision. Creditors and debtors, however, where they have not been stirred to passion, are perfectly friendly, and anxious to live and let live, and to come to such terms with each other as will enable both of them to continue business in the changed conditions of today.

The law court is not the ideal place in which debtor and creditor can come cheaply and amicably to terms. Any settlement that is made will be best made elsewhere and is

being successfully accomplished by the new, but so far experimental, Conciliation Boards.

(xi) The agriculturist has forfeited much sympathy by his thriftless ways and bad methods of farming. When he received special treatment, as in the Alienation of Land Act, he should have made it a point of honour to work hard, to be thrifty and careful, to use his brains to learn better methods and so to get the best out of the land and thereby to justify the granting to him of such favours. This he never did ; not only has he never as a class tried to improve his ways, but till recently he was often apathetic to the efforts of Government to make him try out new methods of farming, living and doing business. If therefore he is helped now, he must agree to open his mind, accept advice and consent to learn the gospel of thrift, wise saving, and wise spending, and to practise better farming, better living, and better marketing. Otherwise we are wasting our time trying to help him, as he will only be in a worse mess again in a few years' time.

The debtors have no real desire to become and to remain free of debt,¹ and if their debts were all removed today, they would begin getting into debt again the first thing tomorrow morning ! At the same time there is a vague stirring within the zemindars which in time, particularly if they are well taught and well led, will bring them to desire to get rid of debt in order to raise their standard of living and become economically independent. This the capitalist must encourage and adapt himself to, as economic independence is quite compatible with sound banking ; in fact sound banking is impossible without economically independent borrowers.

If we can solve the present problem and restart rural

¹ See p. 4.

life, provided that the education of the people is immediately and thoroughly taken in hand, the crisis will have been a blessing in disguise, and we shall lay the foundations of a far sounder and safer edifice of rural prosperity.

Just as the law can neither make people sober nor righteous, so it cannot make them either thrifty or permanently debt-free. It is no use, therefore, hoping for the impossible from legislation.

The best the law can hope to do is to help those who want to help themselves. Whatever law, therefore, is passed, the need for education in its widest sense will remain in order that the people, both capitalist and agriculturist, may learn the proper use of capital and may learn to work together and to use their capital, their brains and their labour to develop the countryside and get the best out of the land instead of wasting all their resources in futile struggles with each other.

For the liquidation of past debts, in the Punjab as elsewhere in the world the two parties must be invited and encouraged to come together and make a settlement that will enable both of them to continue business on satisfactory terms with renewed confidence and mutual respect, Government providing any legislation needed to make things easier for them. Both parties are essential if the best is to be got out of the land and the countryside is to prosper, and any recriminations between them are like *Æsop's* famous quarrel between the Belly and the Members.

This process is already going on and has been legalized in the Debt Conciliation Board Act. Mortgage banks have not yet been able to take a hand in it and it appears to be impossible for them to do so with safety under the law as it stands in the Punjab.

For the liquidation of agricultural debts¹ and the rehabilitation of indebted cultivators, it is very tempting to suggest a mixture of insolvency and Court of Wards proceedings, taking over the debtor's land and other assets, paying his debts at a valuation proportional to the value of his total assets, and then keeping him in leading strings for a limited number of years, while the instalments are being repaid, teaching him and his family the new way to live and farm. Alas, this is Utopian, and no organization, State or otherwise, could undertake such a task without the risk of unlimited loss.

There need be no excuse for putting him into leading strings. Cheap money is essential to farming. Cheap money depends on security; security depends on sound and businesslike methods. These the farmer will never learn if he is left to himself. Except for the Alienation of Land Act which gave him no option but was an arbitrary order forbidding him to sell his land,² he has managed to

¹ A very promising scheme for the reconstruction of debt-loaded co-operative societies in Burma is described in Bulletin No. 3 of the Reserve Bank of India. Its essential features are summarized on page 27 as follows:—

1. Debt conciliation by bringing down the outstandings against members to the present market value of their land.
2. Spreading out the conciliated debt into instalments within the paying capacity of the members.
3. Taking surrenders of land from the members and leasing to them this land as well as land already acquired by the society, the instalment already worked out being fixed as lease money.
4. Supplying crop finance to the members and thus saving them higher interest charge on loans from moneylenders and facilitating repayment of the instalments.
5. Insisting on repayment in kind.
6. Introducing marketing, thrift and other essential co-operative activities in the societies and building up their funds.

² Why not carry the principle one step further and compel him to get permission before he borrows more than a certain sum except from his co-operative society?

make a dead letter of all legislation devised to help him to help himself.

For those indebted cultivators who do really want to save themselves, however, some simple form of insolvency is undoubtedly wanted, which will enable them by thrift and hard work to liberate themselves in a reasonable number of years.

For the future prosperity of the village, discipline and self-sacrifice will have to be exercised by both the principal partners in the agricultural enterprise. The moneylender will have to write down his capital to suit the times, to forgo any desire for personal power or influence and any idea of exploitation, and to confine himself to the financing of farming, rural industries and the development of the countryside. The villager will have to turn over quite a new leaf ; abandon ease, work with brain and muscle, early and late, in co-operation with his fellows ; call a truce to all factions and quarrels, practise thrift, save money instead of squandering it ; submit to being taught better living, better farming and better business, and above all educate his womenfolk and accept them as partners—and where money and spending are concerned, managing partners—in the great work of building up better, happier homes and of achieving by hard work, and securing by thrift, a higher standard of living.

It may be noted that the change from individual moneylenders to rural banks and co-operative societies need not mean unemployment for anyone. A prosperous countryside greatly increases spending power, and a rising standard of living will mean a livelihood for very many more people than can be provided for by out-of-date farming and a debt-ridden population.

Nor let it be supposed that all the joy will go out of

village life when the people are thrifty and free from debt. A wedding which is financed from savings can be just as jolly as one which leaves a load of debt round the necks of the family ; *kabaddi* and football are far more cheery shows than intrigues and factions, and homes are just as pretty and happy which have pictures and flowers instead of gold and silver ornaments ; and homes where children are healthy cannot help being happy.

Thrift does not mean miserliness. Wise spending is part of thrift. Money is not an end in itself, it is only a means to a fuller life, the fuller life of a higher standard of existence, with culture, education, comfort, good health, and the happiness and well-being of ourselves and our neighbours as the ideals.

CHAPTER XVII

CRIME AND FACTION

THE reduction of crime is not solely a matter of more policemen, more magistrates, and more jails, though all of these are important; it is rather the recognition by every individual that it is the duty of a good citizen fearlessly and honestly, and without regard to his own personal convenience or connexions, himself to stand for truth, integrity, and justice for the common weal. It is not for him to make accusations and complaints that the police are corrupt, and that justice is slow and uncertain; rather let him realize that the greatest service which the ordinary law-abiding citizen can give to the administration of justice and to the police is his help in creating sound public opinion against the abuse of the courts for private ends, and the corruption and bribery of the police. It is the failure to recognize individual responsibility which makes bad citizenship.

Whether it is the police or the patwari or some other functionary, villagers, particularly those who have been in the army, often complain bitterly of corruption and of the stirring up of trouble. Almost invariably, however, they speak as if the elimination of corruption of all sorts is merely a matter of stern Government action. Government can do extremely little until it is backed up by a vigorous public opinion, until the backbone of the village is a sturdy peasantry too proud to pay a bribe and, lose or gain, too proud to tell a lie. In nothing is the co-operation of people

and Government more necessary than in the fighting of all kinds of graft and corruption.

All over the world it is agreed that the main causes of crime are defects and maladjustments in the social environment.¹ The peasant everywhere is proverbially a quiet, law-abiding fellow, and yet in the Punjab, a land of peasants, violent crime if not actually increasing is far too common. There must, therefore, be several things wrong with the social environment of the province, and when we come to look into the villages we find some of these wrongs: debt, poverty, ill-health, squalor, slum conditions of living, waste, competitive display and extravagance, dullness and idleness, in some places drink, and everywhere the utterly disorganized state of village life. From all these conditions crime is bound to spring.

Just as, in the matter of health, prevention of disease is better than cure, so in the body politic the prevention of crime should be considered as important as its punishment; and it is here that rural reconstruction has a part to play. The aims of this movement are:

1. Profitable work and interesting recreation.
2. Better homes.
3. Organized villages.

1. **Work and play.** On the economic side are:

- (i) Better farming.
- (ii) Rural industries.
- (iii) Thrift.
- (iv) Co-operative enterprise of all kinds to make what is worth doing at all still more worth while.

These will not only increase wealth but keep the people,

¹ The Home Secretary speaking in Parliament several years ago said, 'Unquestionably by far the most important means of securing a diminution in crime is a general improvement in social conditions.'

mind and body, busy in their present idle time. There are years of good hard work¹ waiting to be done for the improvement of home, farm and village.

Thrift and co-operation, that is to say, better business, are even more important than better farming and better industry for the increase of wealth, while consolidation of holdings² will not only mean better farming but will remove a continual source of irritation and quarrelling. The tattooing of cattle will help to remove yet another temptation to crime.³

Then, to fill in time pleasantly and profitably, there are games and sports, wireless broadcasting, newspapers, cinemas, magic lanterns, cattle shows, ploughing matches, *mélas* and tournaments and, most popular of all, dramas and singing parties.

Let us have good rough games like *kabaddi*, *pirkaudi* and football for the younger, and less rough ones for the older ones. Games will keep the villager fresh—all work and no play will never do!—and will be a great and very popular remedy for idleness and drudgery both of mind and body, besides being a grand outlet for high spirits and superfluous energy. All these things will keep the people occupied and spread goodwill and cheerfulness.

Edward Hyde wrote in 1653 (about England): 'It is a very hard thing for people who have nothing to do to forebear doing something which they ought not to do.' There are too many idle hours and days, and village life

¹ Levelling, terracing, *watbandi*, bund-building, clod-breaking, weeding and roguing crops, fencing fields, mending, raising and straightening roads, filling depressions and making proper ponds at proper distances from the village, pit-digging, improvements to houses and compounds, and general tidying up and improvement of the village and its surroundings (pp. 72-5, 85-6).

² See pp. 168, 174.

³ See p. 270.

is too dull and monotonous. Where the villager is busy Satan is idle, and where the villager is idle Satan is busy—and Satan is a very expensive person to entertain in a Punjab village. He spells quarrelling, faction, litigation, crime, bribery, drink and vice.¹

Work and play are the remedy. Something interesting—and if possible profitable—to do, and something to talk and think about, that is what the villager wants.

2. Better homes. But besides poverty, squalor and idleness, other potent causes of crime, quarrelling, drink and general ill-feeling are bad health and uncomfortable homes. In villages where the children are badly brought up, often ailing, crying, quarrelsome and undisciplined, where the goodwife does not know how to cook the food well or to train her children properly, where everything is slovenly and irregular, there naturally will discontent and ill-will tend to spread. When the home is happy, cheerful and well run, the meals are regular and well cooked, and the children healthy and well disciplined, who will leave it to join in a row or in any other sort of trouble, and where will the seeds of quarrelling and discontent find congenial soil to grow in? Good homes kill crime, vice and disease, and where goodwill and good humour abound, discontent and crime are rare.

There are yet deeper causes of crime and violence: the absence of self-respect and self-control. These virtues are essential to any community of people living in close association with each other, and failure to develop them is responsible for most of the troubles of village life, from dirt to extravagance, fighting, faction, waste and litigation.

It is the absence of self-respect that produces dirty villages, careless farming, lying, false evidence, and the

¹ See p. 262.

giving and taking of bribes, and it is the absence of self-control that produces violence, faction, drink, vice and extravagance. Eliminate this awful list and the village will be a paradise.

Self-respect and self-control are taught in childhood,¹ beginning from the day the child is born—regular feeding, then clean and regular habits, finally the teaching of truth-speaking and the control of the tongue. All this is done by the mother and by the mother alone, who, if she has been herself well trained in childhood, will lay the lifelong foundations of self-control and self-respect in her own children before they are six years old. All the virtues we want the men to practise can be implanted in them by their mothers in childhood—the dignity of labour, pride in home, village and farm, self-respect, self-control, truth-speaking and a clean tongue. No after-training can ever take the place of those vital six years and none but the mother can do this work. Give the mothers the training and the position of honour which will enable them to pass this training on to their sons and daughters, and the future health, peace, and prosperity of the village are assured.

3. Organized villages.² The village is unorganized, insanitary and squalid, everybody is at sixes and sevens and nothing can be done except by official order and pressure from without. There is no authority to settle troubles as they arise, and so to prevent small squabbles spreading till the whole village takes sides and permanent feuds are created.

In every country where civilization is being spread into the villages, the village has a resident administrative and organizing body, and it is no less necessary in the Punjab if we wish for peace and happiness there. The Punjab

¹ See p. 129.

² See chaps. xi, xii.

village must be organized and a special chapter (see p. 152) is devoted to this. Both to defeat the torpor and squalor of the village and to make village life worth living, there must be some association, co-operative society,¹ panchayat call it what you will—within the village itself. For long it will perhaps have to be set up, instructed and supervised from outside, but the association itself must be composed of residents in the village. In this way only will it be possible to solve local difficulties, to settle petty disputes and quarrels, to organize local institutions, and so to maintain corporate and peaceful village life.

¹ None better for settling quarrels than the Co-operative Arbitration Society (see p. 174).

CHAPTER XVIII

SIDE-LINES

HARD WORK AND CO-ORDINATION

THERE are many ways of extracting value out of the land besides ordinary crop farming, but they all mean extra work, and when the farmer is already neglecting work¹—such as weeding, composting, etc.—which will greatly increase the crops, what hope is there of persuading him to work overtime on side-lines? Flour milling has in the last few years become a most successful village industry, but how many farmers own and work either a *kharâs* or a power mill? The principal benefit of village industries will be reaped by the non-agricultural tribes until the Punjab farmer will imitate the industry of the Chinese, or the smallholder of the continent of Europe.

The other essential for successful subsidiary industries is co-ordination.

Co-ordination is of several kinds :

1. Few village industries will yield much profit if run on the present wasteful, uneconomic, disease-ridden, and unskilful lines, and with the present inferior or badly prepared material. The research necessary to bring what profit and improvement are possible into existing village industries and to introduce new ones is done by various departments of Government. There are very few rural industries that do not involve several departments of

¹ Not for want of time! Very few farmers indeed are busy all day and every day.

Government for their successful development. The departments of Government must therefore combine, both with each other and with the villagers. This inter-departmental co-ordination has to start at headquarters and end in the village. Unless the local officers of all the departments concerned work hand-in-glove with each other and the villager, success in modernizing and developing rural industries is impossible.¹

2. Any village industry worth developing at all is far better worth developing co-operatively, to ensure that the producer shall be able to buy his implements and raw material, practise his industry and market his finished articles to the best advantage of himself and his fellow workers. The villagers must therefore organize themselves co-operatively (i) to learn better methods, (ii) to buy their raw materials, tools and equipment, (iii) to exclude practices which will spread disease or produce inferior articles, and (iv) to market the produce of their industries.

Given these two things—hard work and co-ordination—there is no reason why every farmer should not add something to his income by learning a new, or improving an existing side-line, besides having an interesting occupation for idle fingers, mind and time.

1. **Poultry.** Successful poultry breeding here depends on (i) pedigree and selective breeding, (ii) proper feeding and keeping, and (iii) proper marketing arrangements.

The present methods by which breeding is promiscuous, and the birds live in mud hovels and scavenge for their food, could not be improved upon as a means of grading down and destroying poultry. Not only do all the germs and insects which spread disease revel in these mud hovels, but when the poultry do not pick up disease themselves

¹ See p. 195. This is where the Officers' Board comes in.

as they scavenge in the refuse, crows and minas will bring it from other poultry in the village. It is useless introducing high grade poultry to the wretched environment in which poultry now live in the villages.

Government teaches poultry keeping,¹ and any one who wants to add to his income in this way must take the trouble to learn how to keep and feed them properly. He can then either improve his own by breeding only from the best layers and best shaped birds or, better still, start with improved stock which he can get from Government or other expert poultrymen. Even so he is likely to be troubled with diseases caught from the badly-kept birds of his neighbours, so that a co-operative poultry society, in which the whole village or as large a portion as possible joins in, gives the best hope of success.

Without good marketing arrangements, there is little cash profit—although, of course, there is plenty of good food—in improved poultry. For this co-operative societies² are essential. The Christian missionary societies with their village and central organizations are extremely well placed for organizing a poultry industry and there is no reason why the Christian community should not be the poulterers of the province.

2. Dairying. Dairying should theoretically be very profitable as there is a shortage of good milk and ghee in the towns and the price of milk is high. In actual fact, however, small-scale dairying does not pay because the townsman has not been educated up to realizing that pure milk and pure ghee are worth paying a bit extra for. He prefers to buy dirty adulterated milk or ghee at an anna or

¹ One of the best ways of teaching poultry keeping and spreading good stock is to keep pens of poultry at veterinary dispensaries.

² See p. 177.

two a seer cheaper, thus killing the honest dairyman. It is also very difficult for individual dairymen to transport and market their produce.

Co-operative dairying societies,¹ formed by a combine of milk producers, are therefore required, and these must join with the urban Health authorities in a 'drink more milk' and 'use pure ghee and pure milk' campaign.² The town committees in the interests of the town should help actively in organizing dairying in the villages around.

3. Vegetables and fruit. For all these vitamin-producing foods—milk, ghee, vegetables and fruit—which must be grown near the towns and brought in fresh daily, co-operation is essential, and if possible co-operation of consumers as well as of producers and distributors. Fruit growing, like everything else, must be learnt, otherwise the grower will be harried by disease and will lose the benefit of the new and better types of fruit, and the new and better methods of husbandry continually being discovered by Government. Co-operative cold storage for fruit is an essential element of a successful fruit growing industry.

Good dates can be grown in parts of the Punjab, and as the geographical range of this wonderful fruit is fairly limited, the date industry contains great possibilities and should be an ideal opportunity for co-operative enterprise. Date trees like to have their feet in the water and their heads in the sky and, therefore, grow best where other things are less happy and so people are less prosperous. But the date is a slow-growing tree and reproduction is very limited, so that careful organization is required to develop the 'supply' side of the industry. The same applies to the distribution side. To command a good market, dates must be good, clean, graded, and attractively

¹ See p. 177.

² See pp. 104, 276.

and cleanly packed. Advertisement, marketing, and transport arrangements must be good, uniformity must be guaranteed and the whole service must be prompt and reliable.

4. **Sheep and wool.** No attempt is made by the villagers to grade up sheep either for wool or for meat, and the wool is dumped on the market in the crudest and least profitable way, and often deliberately adulterated with a large proportion of dirt to increase weight. Sheep are generally owned by nomads whose seasonal wanderings carry them from end to end of the province. Almost the only return they make for infinite free grazing and not a little damage to crops is the manure their flocks drop on the fields and pastures where they graze or are folded at night. The nomads are often high-handed and quarrelsome in their dealings with the local peasantry.

The English sheep two hundred years ago was much the same as the Punjab sheep is today, a raw-boned, coarse-woolled beast. Selective breeding, attention to disease, proper feeding and management can work wonders, and in no branch of farming could improvement be made more quickly and more profitably than in sheep breeding.

As with other animals, selective breeding, proper food and keep, and attention to disease are the three essentials, but proper attention to disease, particularly parasitical disease, is especially necessary in the case of sheep. A good beginning has been made at the Government Cattle Farm, Hissar, with one of the best indigenous breeds of sheep in India, the Bikaniri, whose wool and meat have already been considerably improved.

A new type of sheep, a cross between the famous Merino and the Bikaniri, has also been evolved and stabilized. In certain conditions it does extremely well and its fleece is

heavier and more valuable than that of the local breeds. The Hissar Dale, as this new breed is called, has been successfully introduced into the Kangra District, but it is less active than the local sheep, being a heavier and less bony type, and like all highly productive animals it is not as hardy as the local sheep, and needs more liberal feeding.

The Veterinary Department hopes, through the location of pedigree rams in the villages for mating with the village ewes, to provide better quality wool for starting a village weaving industry. Of course the best use can only be made of this superior wool if it is processed and sold separately and not mixed with the coarser local wool. Here co-operation is essential between the Co-operative Animal Husbandry and Industrial Departments.¹

Government's scheme of controlled flocks promises to be the best way of combining the teaching of better sheep management with the grading up of meat and wool. In this scheme Government, after surveying the province, buys sheep of the best local breeds and hands them in units of fifty ewes and one ram to selected shepherds who agree to keep them and breed them according to the instructions of the Government animal husbandry experts. The terms are, of course, subject to revision as experience is gained, but at present they are very liberal. Government claims ownership of a constant herd of fifty-one sheep, but all increase beyond this number belongs to the shepherd, and so does the wool and any other by-products. Government is entitled to buy the surplus males and females at agreed prices and this enables Government to increase the number of controlled flocks and to provide superior rams both for exchange between the flocks and for issue to others. Another promising method being tried is the paying of a

¹ See p. 252 n.

small subsidy to selected shepherds who agree to follow faithfully the instructions of the veterinary expert in the management of their flocks.

Although sheep are mainly owned by nomads to whom it is almost impossible to teach better ways of sheep management or co-operative organization, there is no reason why the zemindars of the *barani* areas should not own their own flocks. They have much spare time on their hands and if they owned sheep, organized themselves co-operatively, and spun and wove and knitted wool, they would have an excellent and most profitable subsidiary industry. A new spinning-wheel has been designed by the Department of Industries which enables wool to be processed both for weaving and for knitting, so that blankets and all manner of tweeds and cloths, fit even for export, can now be made in the villages. There are weaving schools at Hissar, Paniput, Kulu, Fazilka and elsewhere, and it is for zemindars to send their sons to learn and for District Boards to provide stipends to encourage them and to organize the teaching of spinning and weaving in village schools. Otherwise this new industry, like so many other profitable side-lines, will be snapped up by the non-agricultural tribes, leaving the zemindars as poor and idle as before. This, it should be noted, is a man's industry, as it is the men in the *barani* areas, not the women, who are idle for months together.

5. Goats. Goats are a difficult subject. They produce cheap and easily digested milk, their flesh is preferred to mutton and their hair and hides are valuable, while the Angora goat, if introduced and acclimatized, would probably provide yet another valuable industry for the sale or processing of the hair. The same principles apply to the improvement of goats as to other live stock—proper

feeding, careful selective breeding and disease control. At the same time the goat, in India and elsewhere when not properly looked after, has probably done more to destroy and desiccate the world than all the rest of God's creatures put together, including man!¹ The goat is called the poor man's cow—because the owner never pays for the browsing and mischief done by his goats! If the goat were called the thief's cow it would be nearer the actual truth, and if payment had to be made for what the goat ate and for the damage it did it would at once cease to be an economic animal. Goat keeping, therefore, can only be encouraged as an industry or as a means of providing food, if proper arrangements can be made for their fodder so that they shall not destroy the life and livelihood of the rest of mankind. Otherwise stall-fed cattle and buffaloes must provide the milk and ghee, mutton must be popularized as meat, and sheep must provide the hair and hide now obtained from goats.

6. Horse and mule breeding. There is a big demand for mules at fair prices in the Army, and Government and District Boards provide donkey stallions, but except in the north Punjab the villager will not avail himself of this opportunity. The Army is ready to buy a lot of young mules at twelve months old and the rest it wants at three or four years old. The cultivator can supply all the young mules, but unless he used them to work his well or a flour mill or other machine, he would find it difficult to keep mules till they were three years old. He has to sell them at about one year old, and non-agriculturists, transport workers and others, buy them and sell the best to the Army several years later.

¹ The lopping of branches for milch cows and buffaloes can, however, be equally destructive, and cows will equally destroy young tree growth. Fortunately they are less active and less ubiquitous!

Horse breeding has ceased to pay as an ordinary industry and only continues to exist with the help of the Army in the Canal Colonies. Opinion is divided whether the putting of a heavy duty on imported geldings and the liberal encouragement of country-bred horse racing would re-establish the horse breeding industry but *prima facie* one would have thought that protection combined with more races and better prizes ought to succeed.

The ideal place for horse breeding should be in the poorer parts of the province, where wells are scattered in the *barani* tracts. A system of annual premiums, graded according to the way the well owner kept his mare and produce, and the way he followed the instructions of the expert should be sufficient to induce every well owner to keep a mare in prime condition, to grow fodder crops and keep silos and to farm and finally to live according to the instructions he received. A little money goes a long way in these areas, there is plenty of exercise ground, premiums are easy to raise or lower or to transfer, and instead of doing the minimum necessary to avoid losing a colony square and grudging every acre not devoted to valuable cash crops, the well farmers would compete with each other to get the biggest premiums. The premiums and the occasional sale of a foal would mean a great deal more in the poor *barani* areas than in the well-to-do Canal Colonies, and it would be far easier to cancel a premium for neglect of instructions than it is to 'resume' a square and evict the holder. There is no society, however, with enough public support to try such a venture for the purpose of restarting a moribund industry, even if the shrinking markets for horses would make it possible. The only possible authority to undertake it would be the Army, but the Army is not a philanthropic institution and could hardly be expected to uproot itself

from the Canal Colonies and start all over again in the *barani* areas in order to spread the wealth of the province more evenly !

7. **Bees.** Little is known about bee keeping in the plains, but there is an excellent bee in the hills and an excellent honey-flow in the wild flowers there. The villagers understand the handling of bees, and all that is necessary is the teaching of better methods of bee keeping, of honey collection and of marketing. Bee keeping has now been started by Government Bee Masters in Kulu and Kangra, and as experience grows the industry will be spread along the hills and we hope in time to the plains also. The technical work is done by the Agricultural Department, while the Co-operative Department is organizing bee keeping societies of villagers.

8. **Silk.** Silkworms do well in the districts near the hills, and there is a big silk weaving industry in the Punjab. The problem now being worked upon by Government is to extend the rearing of silkworms along with reeling and twisting, so as to produce suitable silk yarn locally for the weavers. Once this is solved, it is hoped that even at present prices the rearing of silkworms and the reeling of silk can be made into a useful subsidiary industry for smallholders if only they will take to it, as such, instead of leaving it to non-agriculturists as a whole-time occupation.

9. **Lac.** Prices are now so low that except as a subsidiary occupation for people with time on their hands there is little profit in lac. The Agricultural Department teaches how the wild plum trees (*bêr*) are 'inoculated' and how the crop is collected. Marketing should be and sometimes is done co-operatively.

10. **Handicrafts.** There are many industries like tanning,

leather work, rope and string making, basket work, gut making, spinning, weaving, dyeing and printing, woodwork and iron work where the basic work of the industry is ancient and well understood. Here the main needs are the teaching of new and better methods, processes, and designs, the finding of new markets, and above all the co-operative organization of the workers. This last is most important so that their costs of production and of marketing may be reduced and they may still be able to make a living in spite of the smaller margins of modern industry and the increasing competition of the big urban power plants. There will probably always be a market for hand-made and village-made stuff, but there will only be a living in these industries if the villagers are really well taught and organized and all unnecessary cost, waste and inefficiency are eliminated. In all industries the departmental experts should be freely and frequently consulted as they exist solely to help the people to make a better living out of whatever trade they practise.

There is one important warning. Beware of adding to the burden of the already overworked women. The first job of the woman is running the home and bringing up the children. When she has done that fully and well, she must be allowed a little reasonable recreation—men are not the only people whom recreation benefits! If then there is any time over, by all means let her practise a subsidiary industry. In the Punjab village it is the men not the women who have time on their hands—particularly in rain fed and unirrigated areas—and subsidiary industries are primarily and mainly for the men. It is the men for whom we must find profitable ways of increasing the family income and of using up idle time which might otherwise be spent in occupations that waste the family resources, or which even

Satan might succeed in claiming for his purposes.¹ Whenever, therefore, a new industry or a new process is introduced, be careful to train the men to do it and make it the men's business, as if once the women take it up the men may refuse to touch it.

¹ See p. 248.

CHAPTER XIX

MISCELLANEOUS

THIS chapter contains short notes on several subjects of importance for which room could not conveniently be found in the other chapters.

1. **Ornaments.** The subject of ornaments has been described as controversial, and the campaign against the excessive use of them as a fad. This is mere nonsense. The position is simple and logical. The desire for decoration is natural and laudable, but in an era of low prices, there are other ways of expressing it than by the barbaric display of gold and silver. Children can be clean, healthy and bright. What clothes they wear can be neat and clean. Women can learn to make pretty clothes for themselves and their children. Flowers, pictures, and a tastefully decorated home are within the reach of most of those who now get into debt to load themselves with trinkets.

As for gold and silver ornaments, they have no place on men who complain that they are too poor to pay their taxes, and in a country where they are so coveted the flouting of excessive and expensive ornaments by either men or women in the presence of those who cannot afford them is merely tactless and unkind. For women, no prohibition is needed. It is enough to educate them, and then leave them to decide for themselves whether they should spend their money on ornaments, or should content themselves with such a reasonable amount as they can

easily afford and spend or bank the rest of their savings for the security and improvement of home and family.

As a means of accumulating savings, ornaments are out of date and inefficient compared with savings banks, co-operative banks, insurances, cash certificates, and other modern methods. Ornaments wear away, are lost or stolen, and are a source of anxiety to their owners and of envy and rivalry to the neighbours. The alteration of ornaments to suit changing fashions costs money and even without an undue addition of alloy, they are rarely ever again worth their first cost.

Children—boys and girls—should never be allowed to wear ornaments, and in this case a positive and vigorous attack should be made upon prevailing custom. The reasons are as follows :

(i) Nothing can add to the beauty of a clean, healthy, happy, intelligent child, and therefore they are unnecessary.

(ii) Children are frequently robbed and murdered for their ornaments.

(iii) Children cluttered with ornaments cannot wash properly and cannot play properly, and therefore their health and so their beauty is endangered by a custom whose only justification is the increase of beauty !

(iv) The custom involves a waste of money.

(v) The wearing of ornaments teaches the children habits of extravagance, and

(vi) makes them vain.

(vii) The boring of holes in children's ears is extremely painful, as no anaesthetics are used. It causes many days and nights of suffering and occasionally permanent harm to the outer or inner ear, while blood-poisoning or tetanus are quite possible as no antiseptics are used.

The young of all species are beautiful and the human child

GIRL ROBBED OF EAR-RINGS

ORNAMENTS STOLEN CHILD CARRIED AWAY BY PASSER-BY

How Sakina, a girl of 7, was deprived of some silver ornaments was related to the Sadar Police, Delhi, by her some sweets and robbed her of Jafar Ali, a tongawala. According to the Veterinary Hospital on his return he girl was taken away esai after Ali later ed when in rms of a her to a d that he pretext of are removed bolted away

(From Our Own Correspondent)
Lahore, Jan. 2.

A pathetic report of how a nine year old boy was strangled to death for the sake of some ornaments is received from village Jhandu Singh.

It is stated ing some silver was playing man went t side the v of giving strangler camped police the dead bu investigation.

FATAL FIGHT OVER A TREE One Killed and Six Injured

JULLUNDUR, March 6. A dispute over the ownership of a tree led to a free fight with lathies and axes between two factions of Jats in Hapowal village, Jullundur District, and one man was killed and six men were injured. The police have arrested 15 men belonging to both parties.—A.P.

is no exception, provided it is kept clean and healthy and its intelligence is awakened and developed by proper training and education.

2. Unwanted dogs. Many villages swarm with noisy, mangy, miserable and entirely useless and unwanted dogs. The destruction of full-grown dogs, besides being entirely ineffective, is an expensive, clumsy and nasty method of controlling the canine population. By far the easiest, cheapest and least objectionable method is the drowning at birth of unwanted puppies, and if this duty were laid upon the village menials, the dog population could be brought under control in a year or two. To avoid more suffering than necessary, one puppy per litter can, of course, be left for the mother to suckle. Once such a custom has been established, villagers will probably begin to select the best puppies and litters for survival and many will possibly begin to take an interest in the bringing up and training of individual puppies which they have saved from destruction. But for sentimental reasons, to allow unlimited numbers of puppies to grow up and then when the nuisance becomes unbearable, to employ whole-time qualified doctors and veterinary surgeons to destroy them is utterly to be condemned; at any rate, until all the money necessary for the medical needs of women and children has been found.

3. Cactus. This can be entirely and harmlessly eliminated free of charge by the introduction of the little white cochineal insect. These insects were originally imported from south India for the Skinner Estate and can be got from the Sub-Divisional Officer, Palwal, or the Deputy Commissioner, Gurgaon. A small parcel of these spread over a few plants will kill them in a year. As the insects increase they can be spread on to other plants and

patches, and when they have done their work, they disappear and do no harm whatever to anything else.

4. **Accuracy and training.** Every effort should be made to do things right the first time, whether it is building a drain, fixing a ventilator or mending a well-top. If a drain is made the wrong way it will certainly have to be raved up and redone in a few months, and this costs money and discourages people. Plans and models of most of the common things can be obtained and these should be studied before villagers are asked to spend their time and money on improvements. Rural Reconstruction is the practical application of the principles of many sciences, but when it reaches the villages, it must be very simple. It must, however, be very definite and as far as it goes absolutely accurate. It is no use being vague with the villager and it is still worse to tell him things which are not correct. All workers, therefore, whether official or non-official require training.

There is no institute or school in the Punjab for training in Rural Reconstruction, but courses are arranged for those who desire them. Training should last about three months, beginning with several weeks spent at headquarters studying, asking questions, listening and discussing, and followed by tours all over the province to see new and good work in actual progress, with intervals for further study and discussions at headquarters. The Skinner Estate is visited near Palwal to see what a landlord can do by continuous effort. At Phillaur the co-operative consolidation of holdings is studied. In Montgomery District is seen what rural civilization can look like in its most advanced form and in the most favourable circumstances under the inspiration of the District Officers. Health work in Hoshiarpur, cattle improvement societies in Amritsar, and

so on; each tour must vary according to what each student most needs to study and what can be seen at its best, at the time, throughout the province.

5. **A weekly holiday.** There is no doubt whatever that everyone, official and villager alike, would be the better for a regular weekly holiday, and it would lengthen considerably the lives of the working cattle. It is no fluke that the most successful peoples in the world are those who in the past have laid the greatest stress on resting on the seventh day. A regular holiday ahead is an incentive to hard and cheerful work, whereas hard continuous work, with no regularly recurring holiday to look forward to, soon becomes depressing and may easily deteriorate in quality. Besides, just as a wedding or other social occasion paid for by savings is far more enjoyable than one paid for by borrowing, so is a regular holiday earned by a fixed period of good hard work far more enjoyable than an accidental day off coming by chance after an indefinite period of work which has lost its zest.

It is not an idle day which is wanted so much as a day of changed occupation, mental and physical. Those who have sat all the week at office desks require physical activity. Those who have been ploughing or reaping and busy with farm routine for six days will sit about and talk and read or loosen their limbs with games. And all should refresh their minds. The impressions and thoughts of the week will, during the relaxation of the seventh day, settle into their proper pigeon-holes in the mind ready for future use, and all staleness and confusion will disappear. More and better work is done in a six than in a seven-day week.

Besides providing a holiday, the seventh day provides the opportunity for a much needed weekly clean-up.¹ For

¹ See p. 229.

six days everybody does his job, and is as clean and tidy about it as possible. But on the seventh day or on the sixth evening every one sets about giving the home and the village a special polish. On that day corners are looked into, and everything that got left out during the busy week is attended to, clothes, children, stables, fowl-houses, nothing escapes. Those who select their day of worship for their weekly holiday will find that religious observances are more enjoyable and far more effective in an aroma of perfect cleanliness. And in the afternoon, what better than games, or a ploughing match, or a picnic for the children? Later in the day come the meetings of the village council, the Women's Institute, or any other community activities which have been established, while the wireless programme marks the end of a perfect day!

6. **Quinine.**¹ This is a very expensive drug in the quantities required to have any real effect on malaria. The quinine trade is in the hands of a ring, and most of the world's quinine comes from Java. I do not know whether, like all competitive industries in the world, the quinine industry has rationalized itself, written down its capital, cut down its working expenses and done everything possible to maintain and expand its trade in an impoverished world, but the fact remains that at present prices the Punjab will never consume sufficient quinine to keep down malaria. If Government sells below world prices, the drug will be smuggled out of the country and Government will be bled white to no purpose. What is the remedy? In the first place the Royal Agricultural Commission pointed out that, given the necessary research and effort, there was no reason why India should not itself grow and manufacture good quinine instead of relying on Java. Suppose this were done,

¹ See p. 115.

and with the help of Government, trade, and philanthropy the whole business from sowing the seed in the plantation to marketing the finished article became a Public Utility Corporation.¹ Even if at first the price had to be kept parallel with world prices, all profits and all contributions would go to the extending of the quinine business or to other forms of anti-malaria work, so that finally not only would India get enough quinine for itself but perhaps an export trade could be built up. There are many ways of defeating the effect of a high world price in order that quinine could be marketed at a price that would make its general use possible. What about, for instance, a village quinine bank? The quinine would sell over the counter at world prices, but the share-holding purchasers would finance all their community necessities out of the profits.

7. **Untouchability.**² One of the ways of helping in a practical manner to kill untouchability would be to remove one of its main props—the carrying of night-soil by certain castes. Many missionaries have done this for their homes and quarters by using some form or other of the septic tank principle for latrines and urinals. This should be used for all residences where flush sanitation is impossible, and for rest-houses something should be devised which is suitable for occasional use only. Either flushing arrangements or some sort of hole in the ground or some form of septic tank should be the absolute and universal rule and, except in sick-nursing, where no stigma attaches to menial services, on no account should any human being ever be expected to handle crude night-soil.

8. **Cattle-lifting and tattooing.** Cattle-lifting in some

¹ Why should not the world distribution of quinine be similarly tackled at Geneva so that an agreed price could be fixed for every country and its consumption multiplied?

² See p. 43.

areas is a terrible curse. The ploughman cannot be certain of his team nor the housewife of her milk and by being unable to tether his cattle in his fields at night, the farmer loses his best fertilizer. The grading up of cattle is useless when there is no security of possession, cattle-lifting corrupts all classes of the rural community. This evil has often been more or less acquiesced in by Government and public alike but its elimination is one of the most important items of Rural Reconstruction.

It has been proved that properly tattooed cattle are very rarely stolen. Accordingly a scheme has been drawn up for the voluntary tattooing of cattle in the Punjab. With the help of the alphabet and the English numerals twenty-four symbols have been selected, none of which can easily be altered to resemble any other. With three symbols twenty-four villages in each *tana* of the province can be distinguished. After twenty-four villages in any single *tana* have joined the system new ones will have to use a four symbol cypher. The district, *tana*, and village cypher is punched in the near or left ear and with another three symbol punch the quarter of the year in which the tattooing was done is recorded in the off or right ear.¹ A satisfactory ink has been found, a register prepared and punches and symbols ordered from England. Any landlord, panchayat, Court of Wards, co-operative society or other institution, wishing to tattoo their cattle must obtain a certificate from the Superintendent of their District Police that they are fit to be trusted with a cypher and they can then order their equipment from the Commissioner, Rural Reconstruction, Punjab. The register is not obligatory but obviously the tattooing will be more

¹ If the tattooer desires he can put a serial number in the right ear.

valuable if a full record is kept. The form is in triplicate and when an animal is transferred, one copy is given to the new owner, and a second copy is lodged in the police station for record. Only such persons or societies are given certificates for the purchase of tattooing equipment as are known to be genuinely anxious to assist in fighting cattle-stealing and will not abuse the system by carelessness or by collusion with thieves. It is not suggested that every animal should be immediately tattooed. All calves should be done and such full grown cattle as are valuable and are docile enough to make the operation reasonably easy. Tattooing requires skill and practice and the Police and Veterinary Departments are ready to give every assistance in teaching cattle owners to use the punches and in getting the system started. But the work must be done, the payment made, and the registers kept by the cattle owners themselves. The villagers must help themselves,¹ in this important matter, as in everything else, if they wish to get rid of the curse of cattle-lifting and to have a peaceful prosperous countryside.

9. **Armistice Day and an Indian Legion.** At the end of the War a great opportunity was lost of binding the ex-soldiers together in an Indian Legion, for their own welfare and the good of their country. Every year comes a splendid chance of renewing their comradeship and refreshing their loyalty on Armistice Day,² the one day in the year when the old soldier is once more the pride of his grateful country. It is not too late to rectify these omissions. A good Ex-service Association and adequate Armistice Day celebrations would be all the more valuable now that we have a short-service army and the soldier leaves the colours

¹ See pp. 17, 18.

² These have been begun—with great success—in the Punjab.

before he has had the time to imbibe in such full measure the spirit and traditions of his long-service predecessor. The military classes are very anxious for their full share of the commissioned ranks but probably the main hindrance to the achievement of their laudable ambition is the absence in too many of their children of that background of general knowledge and culture which can only be imparted by an educated mother.

10. Game preservation. During the sixteen years that followed the Great War nine-tenths of the marketable game of the Punjab was destroyed. To this must be added the equally mischievous destruction of the insect-eating birds upon whom the farmer relies for protection from the many pests which attack his crops, his fruits, and his timber. A law has now been passed and an attempt to enforce it has begun, but much more will have to be done to restore things to anything like what they were before. The chief evils are netting and the killing of game during the breeding season, and the best way of coping with them is to control transport and marketing.

There is no better way of making a close study of a countryside than by shooting over it, and abundance of game makes touring far more attractive to both civil and military officials, so that in his own interest the villager would be wise to insist upon the safeguarding of such a useful asset. At the same time, this stupid annihilation of wild life has brought no profit to the villager who supports the game, and there is no reason why both sport and the marketing of game should not be combined with the maintaining of an ample stock of game and the definite financial benefit of the villager.

It is probable that sporting rights will soon have to be recognized and developed as the best way of preserving

what is in other countries a recognized rural industry. Individuals or syndicates will then be able to come to terms with villages or groups of villages for their goodwill and assistance, and as game is usually commonest in poor tracts of country, this will bring a welcome addition to the income of those village communities which are accessible from the larger centres.

Those who are interested in the preservation of wild life, either for its own sake, for the help that so many birds give the farmer and orchardman, for sport, or as a rural industry, should do all they can by example and precept to discourage the killing, eating or marketing of game during the breeding season, to prevent the destruction of game by illegal methods, and should join the local Association¹ founded for the protection of wild life.

11. Ribbon development. At crossroads, bus halts, country railway stations and other such traffic centres the most appallingly filthy little bazaars are springing up. The residents are completely without any sense of smell or sanitation, and without any desire to live in nice surroundings. They must be compelled to build under licence and in places where drainage and sanitation are possible, and they must pay for both. If possible the bazaar must be set back far enough for carts and lorries to halt without blocking traffic on the main road. If the present law is inadequate, then, to secure control, it must be suitably amended, as the present state of squalor on both sides of our roads, and sometimes on the roads too, is a disgrace to civilization.

12. Urban uplift. The whole of the health side of village uplift applies equally to the towns.

¹ In the Punjab, N.W.F.P. and Delhi, the Northern India Association for the Protection of Wild Life; the Secretary's Office is at Dharmasala, Kangra District.

Vaccination, ventilation and pits are equally necessary—even more so. The Municipal Committee must dig the pits, and it would be wise to make the pit unit of the right size for one mali to buy, so that pits may be sold direct to malis and not through middlemen. Pits should be filled and closed quickly, and a record of dates kept so that by experience the right date for selling each pit may be correctly estimated. No pit should be sold till it is 'ripe', and water should be added if necessary to hasten decomposition. Far better than pits, however, and far more profitable is the Indore system of compost making,¹ which should be introduced as soon as possible. Latrines in ample number should be provided all round the town, not of the kind which demand efficient service, as that means they will stink too much to be used, but some form of hole in the ground or septic tank which will require as little service as possible.

By-laws must compel every shopkeeper and householder to keep a rubbish bin, and these must be emptied daily by the municipal dustman. On no account must rubbish be thrown into roads, streets and open spaces.

Clean habits must be taught by all the means suggested in this book, and above all by the personal example of the city fathers in their own homes and the official example of the municipality in its offices and institutions. Municipal servants not setting a good personal example must be removed.

The Municipal Committee must encourage by all means possible the production, distribution and consumption of pure milk and ghee, fresh vegetables, and other ingredients of a good diet. Good marketing arrangements, testing stations for milk and ghee, the encouragement of co-operative

¹ See p. 66 and *Pit Pamphlet*, p. 277 (1).

dairying¹ in the villages round, a 'pure milk and ghee' and 'drink more milk' campaign,² are all means of helping. If adulterated milk and milk products are allowed to sell, honest dairymen cannot live. As soon as dairying is well established outside the town and good milk and ghee are easily procurable at reasonable prices in the town, every effort must be made to get all the cattle out of the town. Meanwhile, the town must keep approved dairy bulls and must have by-laws to regulate the loosing of bulls and strictly enforce them, as bad bulls are a nuisance outside as well as inside a town.

Quinine and mosquito-nets must be popularized. Playing fields must be provided, boys' clubs and sports clubs and sports meetings organized and encouraged.

Girls' education must be properly organized and equally good school buildings and playgrounds provided for girls as are provided for boys.

Women's parks and gardens, Women's Institutes, health centres, dai-training, and women's hospitals, are far more necessary than the corresponding institutions for the men.

Cultural institutions, libraries, dramatic and musical societies, public lectures, wireless broadcasting are very badly needed. Every philanthropic institution such as the Red Cross, Boy Scouts, Girl Guides, must have its branch in every town and citizens must be taught that one of the duties of good citizenship is to support, with service and money, every institution that makes for the health, happiness, culture, comfort or convenience of themselves and their neighbours.

¹ See pp. 104, 253.

² Towns which raise money by organizing cattle markets are doubly bound to devote money to the development of dairying.

APPENDIX I

LIST OF BULLETINS, LEAFLETS AND PAMPHLETS

I.—List of bulletins issued from the office of the Commissioner, Rural Reconstruction, Punjab, Lahore, in English, Urdu, Hindi, Gurmukhi and Roman Urdu, which can be had free on application.

1. Pits.
2. Light and air.
3. Vaccination.
4. The prevention of epidemic cattle diseases.
5. To stop the boring of ears and noses and the putting of ornaments on children.
6. Village games.
7. Girls' education.
8. Stud bulls: to be bought and kept by the villagers themselves.
9. Sowing cotton in lines.
10. Care of eyes.
11. Malaria.
12. Improved wheat seed.
13. Productive and unproductive expenditure.
14. One anna in every rupee (smut of wheat).
15. Eradication of smut.
16. Small cause, big result (sugar-cane pyrilla control).
17. Drink pure water (sanitary well-top).
18. The cook helps the farmer (haybox).
19. Work is the mother of good crops (*watbandi* or *daulbandi*).

20. Silage.

21. Ghee making : haybox versus indigenous methods.

These and further bulletins as issued and much other printed material can be had free on application.

II.—Leaflets and Pamphlets

1. Village life and how to improve it.
2. Rural Reconstruction programme.
3. Home sweet home.
4. District shows. (English)
5. Soil erosion. (English and Urdu)
6. Note on erosion and reclamation in the Hoshiarpur *siwaliks*. (English and Urdu)
7. Soil erosion. An outline for practical teaching in schools. (English and Urdu)
8. District information bulletins (Urdu, Gurmukhi, Hindi and Roman Urdu) containing details of work in each district.

APPENDIX II

SOME HANDY BOOKS FOR RURAL WORKERS

1. *The Development of Indian Agriculture.* By Sir Albert Howard, C.I.E., M.A. and G. L. C. Howard, M.A., 2nd ed., Rs. 2-8. Hindi edition, Rs. 2-8.

'This book deals with practically all the aspects of Indian agriculture. The last chapter contains some very valuable practical suggestions bearing on village reconstruction.'—*Capital*

2. *The Waste Products of Agriculture. Their Utilization as Humus.* By Sir Albert Howard, C.I.E., M.A., and Y. D. Wad, M.Sc. Rs. 5.

This book, which is based on experiments carried out at the Institute of Plant Industry, Indore, shows by what simple methods of manure production the productivity of the soil can be very much increased.

3. *Up from Poverty in Rural India.* By D. Spencer Hatch, Ph.D. 3rd ed. Illustrated. Rs. 2-8. Malayalam Edition, Re. 1-8.

This book gives a careful account of the method of rural reconstruction carried on under the author's direction at the Y.M.C.A. centre at Martandam in Travancore. 'A very inspiring book indeed.'—*Statesman*

4. *Further Upward in Rural India.* By D. Spencer Hatch, Ph.D. Illustrated. Rs. 2-8.

A sequel to *Up from Poverty*, this book is the latest report of work in progress at Martandam.

5. *Review of Rural Welfare Activities in India, 1932.* By C. F. Strickland, C.I.E. Re. 1.

A very useful compilation for those engaged in rural welfare work. It gives a résumé of all agencies working

throughout India and their work, and a frank and critical opinion about their work.

6. *The Progress of Rural Welfare in India*, 1934, 1936. Each 8 As.

7. *The Science of Health*. By H. E. H. Pratt and Dr Ruth Young, M.B.E.

An illustrated text-book of Physiology, Hygiene and First Aid for Indian schools, with or without a final chapter on sex instruction. 14-chapter edition, 12 As. 15-chapter edition, Re. 1.

'This little book admirably meets the needs of Indian students. . . . We can strongly recommend it.'—*Teaching*

8. *The Punjab Peasant in Prosperity and Debt*. Rs. 7-8.

9. *Rusticus Loquitur*. Rs. 9.

10. *Wisdom and Waste in the Punjab Village*. Rs. 8. By M. L. Darling, C.I.E., I.C.S.

The above ten books are published by the Oxford University Press.

11. *The Boy Scout in the Village*. 12 As. Urdu edition, 10 As.

12. *A Scheme of Rural Reconstruction*. 4 As. (Urdu edition in the press.)

13. *Pits*. English, Urdu, Gurmukhi and Hindi editions, 1 Anna each. Roman Urdu, 2 As.

Nos. 11-13 are by F. L. Brayne, C.I.E., M.C., I.C.S., and are published by Uttar Chand Kapur & Sons, Lahore.

14. *The Village Dynamo*. English and Urdu, 4 As. each. By F. L. Brayne, C.I.E., M.C., I.C.S. Published by R. S. Munshi Gulab Singh & Sons, Lahore.

15. *Village Readers*

Primer	20 pp. 2 As.
Reader I	30 pp. 2½ As.
Reader II A	42 pp. 3½ As.
Reader II B	66 pp. 4 As.

Reader III A	64 pp. 4 $\frac{3}{4}$ As.
Reader III B	64 pp. 5 As.
Reader IV A	78 pp. 5 $\frac{1}{2}$ As.
Reader IV B	84 pp. 6 As.

Enlarged and combined edition :

Primer	74 pp. 5 As.
Reader I	70 pp. 5 As.
Reader II	86 pp. 6 As.
Reader III	108 pp. 7 As.
Reader IV	128 pp. 8 As.
Reader V	136 pp. 9 As.

These readers embody Mr Brayne's ideas, and have been planned and executed by the Rev. W. M. Ryburn, Principal, Christian High School, Kharar, conjointly with Mr Brayne.

16. *Socrates in an Indian Village*

Library edition, Rs. 3 : cheap edition adapted for schools, Re. 1. Revised 1937.

Vernacular editions : Gujarati, Marathi, each 8 As. Tamil, 12 As. Gurmukhi, Kanarese, Telugu, Urdu, each Re. 1. Hindi, Re. 1-4.

17. *The Indian and the English Village.* Re. 1.

18. *Socrates Persists in India.* English, Re. 1. Urdu, 8 $\frac{1}{4}$ As. Roman Urdu, Re. 1-4.

19. *Socrates at School.* Re. 1.

20. *The Remaking of Village India*, being the second edition of *Village Uplift in India*. Rs. 2. Vernacular editions : Hindi and Marathi, each 8 As. (A few copies of the first edition in Urdu or Hindi can be had from Mr Andrews, Civil Lines, Jhelum, at 12 As. each. Otherwise out of print.)

Nos. 16-20 are all by F. L. Brayne, C.I.E., M.C., I.C.S., and are published by the Oxford University Press. Nos. 15 and 19 have the collaboration of the Rev. W. M. Ryburn.

21. *Lecture Notes on Rural Reconstruction*, English, 3 As. Urdu, 2 As. By F. L. Brayne.

Published by the Feroze Printing Press, Lahore.

22. *The Psychology of a Suppressed People*. By J. C. Heinrich. Rs. 3-12, Boards, Rs. 2-12. (Published by George Allen & Unwin, Ltd.)

.All these books can be had from the Office of the Commissioner, Rural Reconstruction, Punjab, Lahore.

APPENDIX III

LIST OF MAGIC LANTERN SLIDES

1.	Introductory	..	..	..	..	7 slides
2.	Erosion and Afforestation	..	..	..	..	43 "
3.	Consolidation of holdings	..	..	..	..	8 "
4.	Embanking and terracing	..	..	..	..	3 "
5.	Better Farming :					
	(i) Seed	..	..	..	..	4 "
	(ii) Implements	..	..	..	..	6 "
	(iii) Methods	..	..	..	..	11 "
	(iv) Pests	..	..	..	..	4 "
6.	Better Animal Husbandry :					
	(i) Cattle	..	..	..	..	17 "
	(ii) Goats	..	..	..	..	3 "
	(iii) Mules	..	..	..	..	2 "
	(iv) Sheep	..	..	..	..	8 "
7.	Subsidiary Industries	..	..	..	..	5 "
8.	Cow-dung, fuel, haybox	..	..	..	..	7 "
9.	Cleanliness and manure	..	..	..	..	34 "
10.	Light and Air	..	..	..	..	14 "
11.	Village Amenities	..	..	..	..	19 "
12.	Diseases :					
	(i) Smallpox	..	..	..	..	5 "
	(ii) Plague	..	..	..	..	4 "
	(iii) Malaria	..	..	..	..	19 "
	(iv) Cholera	..	..	..	..	2 "
						4 "
13.	Propaganda	..	..	..	..	4 "

14.	Panchayat and Village Banks and P.O. Savings-Banks	6 slides
15.	Female Education	11 "
16.	Women's Welfare	17 "
17.	Village Vices : drink, fighting, litigation ..	7 "
18.	Village Games	4 "
19.	Scouting	13 "
20.	Conclusion	3 "
21.	God Save the King	1 "

(Prices and lecture notes on application)

These slides are obtainable through the Commissioner,
Rural Reconstruction, Punjab, Lahore.

APPENDIX IV

LIST OF GRAMOPHONE RECORDS IN PUNJABI & AND URDU

Prepared by the Commissioner, Rural Reconstruction, Punjab, Lahore, and obtainable, through him, from the Gramophone Company Ltd., Post Box 150, Delhi.

Serial No.	Name of Record	No. of Record O.M.G.	
1	Subah Suhani chirian bolen bol rahe hain jag (Good seed)	2588	Urdu
	Bhai Kisano ! Bhai Kisano ! (Cleanliness)	2589	
2	Jatta apne mal tun kuchh nah kuchh bachaya kar (Thrift)	2639	Punjabi
		2640	
3	Ki kuj "khol sunawan dilda hal belia (Social ceremonies)	2650	Punjabi
	Khetan walia khet sambhal we (Better farming)	2682	
4	Ham sab hain bahi bhai (United and co-operative effort)	2651	Urdu
	Rab sachha farmawe jatta chhad de Muqadme dawe (Give up litigation)	2641	Punjabi
5	Uth ghaflat de matwalia (Wake up from lethargy)	2642	Punjabi
	Rakh ilm de nal piyar kure (Girls' education)	2657	Punjabi
6	Hosh kar, hosh kar, hosh kar, hosh kar (Drink evil)	2681	Urdu
	Ae zamindaro kaho kab hosh men aoge tum (Awakening from apathy) ..	2653	
7	Tu hai izzat dar kisan (Self-respect) ..	2652	Urdu
	Tamana hai keh dehati watan ki aisi halet ho (Better living)	2655	

Serial No.	Name of Record	No. of Record O.M.G.	
8	Putan dhian nun ilm parhā jatta (Education and co-education) ..	2693	Punjabi
	Tusi suno Punjab de wasio (Factions)	2656	
9	Chhad jatta nind piari nun (Awaken- ing)	2654	Punjabi
	Mushaqqat ki zillat jinhon ne uthai (Hard work)	2690	
10	Sun ae bhai kisan tu (Self-respect) ..	2683	Urdu
	Ilm daulat hai bhai kisano (Education)	2684	
11	Kharch karna ho to apne pas zar kuchh dekh le (Saving and thrift)	2691	Urdu
	Nahin karte kheti men jo janfishani (Better farming)	2689	
12	Mere karam gai hain phut mera is ghar adarna (Women's welfare)	2694	Urdu
	Be koshsih-o-be-jehad samar kis ko mila hai (Self-help)	2692	
13	Dam daman di jugni rare pai (Thrift and girls' education)	5908	Punjabi
	Jaman amban bagh sohaya (Fruit growing)	5953	
14	Lagge qarza aje wi piara (Unproduc- tive loans)	5892	Punjabi
	Ilm bajh nah khaliq mildah (Educa- tion)	5921	
15	Ban mard-i-maidan (Self-respect) ..	5923	Urdu
	Bashar ko lazim hai kih himmat nah hare (Hard work and industry) ..	5955	
16	Putan dhian nun ilm parhawanda jo (Education of boys and girls) ..	5924	Punjabi
	Jatti jor ke hathiharz kardi (Consolida- tion of holdings)	5941	
17	Sardar zemindar baghan da (Borrow- ing)	5895	Punjabi
	Bachhon ki talim (Primary education)	5940	

Serial No.	Name of Record	No. of Record O.M.G.	
18	(Sohniyan jogan wala hal chalai janda (Better farming, better cattle) ..	5893	Punjabi
	Jindri nah rol jatta dharti de waliaya (Blood-feuds and faction) ..	5894	
19	Tun buryan ih rasman mita de beliya (Evil customs) ..	5897	Punjabi
	Jatta dunyan jagdi te tun kayun rahiyon saun (Awakening) ..	5896	
20	Chhiti dard wandan waliye (Uplift) ..	5948	Punjabi
	Bachhiyan nun ilm parha lo sahobo (Education and training of children)	5926	
21	Lang a-ja pattan chinan da yar (Better living) ..	5907	Punjabi
	Baba kuchh to soch bichar baba (Bad living) ..	5925	Urdu
22	Rab di rahmat us to janon chhagai (Education) ..	5927	Punjabi
	Uth jag gharare mar nahin (Shake off lethargy) ..	5918	
23	Piyara mai ni mizaj kini rakhda (Romance of village life) ..	5922	Punjabi
	Hai tere dam se zamindar zamana masrur (Farmer's place in society) ..	5919	Urdu
24	Parha lo chhoryan nen (Girls' educa- tion) ..	5909	Haryana
	Kar Fikar kisan ab dhan ka (Village economy) ..	5920	
25	Piyare nah kar sada shikar (Preserva- tion of wild life) ..	5949	Punjabi
	Tumhare jour-o-sitam se parind nalan hain (Preservation of wild life) ..	5954	Urdu

APPENDIX V

LIST OF RURAL RECONSTRUCTION MODELS

1. Village models (good and bad), portable. Packed in two wooden boxes ($4' \times 3' \times 1'1''$) with explanatory cloth banners (English and Urdu).
2. Ditto. Miniature size.
3. Village well-top with arrangement for disposal of waste water, portable ($2' \times 2' \times 1'$) with explanatory cloth banner (English and Urdu).
4. Purdah washing place.
5. Persian wheel combined with purdah washing place and *khurâs* for the disposal of waste water, packed in a wooden box.
6. Model of village school, portable, packed in box ($3' \times 3' \times 10''$).
7. Miniature wall ventilator, fitted with wire gauze or sparrow wire ($2'1'' \times 1'3'' \times 7''$) showing how ventilator is fixed in wall.
8. Ventilator ($2\frac{1}{2}' \times 1'$).
9. Ventilator of reinforced concrete.
10. Galvanized iron roof ventilator.
11. Glazed window for well-to-do zemindar.
12. Wooden model of bored-hole latrine ($11'' \times 11'' \times 9''$).
13. Wooden model of quail pit latrine ($10'' \times 10'' \times 9''$).
14. Cement concrete slab for bored-hole latrine (full size).
15. Model of double pit ($16'' \times 18'' \times 6''$).
16. Model of double pond system ($2' \times 1'4'' \times 4''$) showing a suggested way of using the pond area both for water and for building clay and so avoiding promiscuous digging all around the village (see p. 48).

17. Box for exhibiting seed samples, suitable for touring officers ($1' 5'' \times 10\frac{1}{2}'' \times 3''$).
18. Wooden sample of a 'U' drain-brick ($10'' \times 5'' \times 3''$).
19. Maps of consolidation of holdings ($9' \times 10\frac{1}{2}'$) with trees, wells, etc.
20. Twenty Urdu slogans on canvas ($3' \times 2\frac{1}{2}'$).
21. Sixteen charts on canvas of sixteen commandments ($3' \times 3'$).
22. Wheelbarrow (under construction).

All these models are obtainable through the Commissioner, Rural Reconstruction, Punjab. Prices on application.

APPENDIX VI

LIST OF CONCRETE CEMENT ARTICLES

1. Drains, whole pipe

4" diameter :	5	pice	per	running	foot.
5" "	7				
7" "	9				
2. Drain collars as above.
3. Half pipes 5 pice per running foot.
4. Roof ventilators 4 As.
5. Wall ventilators (reinforced) 6 As.
6. Latrine squats (reinforced) Re. 1-2

These articles are manufactured in Hoshiarpur and are obtainable through the District Medical Officer of Health, Hoshiarpur, Punjab. Prices are subject to alteration without notice.

INDEX

- Accuracy in rural work, 267
 Agriculture, Royal Commission on, 23, 269
 Alternative to Rural Reconstruction, 3
 Ambition for higher standard of living, 2, 6, 8, 20, 22, 33 n, 130, 238
 Apathy, 4, 5
 Arbitration society (co-operative), 174, 250 n
 Armistice Day, 272
 Artisans, 30, 175
 Assistant Commissioners, 191

 Back to nature, 110
 Barter, 129, 235
 Bees, 260
 Better Living societies (co-operative), 173
 Birth-rate—see Population
 Blue-prints, 32 n, 288
 Books, 220, 279-82
 Bored-holes, 42-4
 Boy Scouts, 78, 191-4, 197, 198, 201, 210, 276, 284
 Bribery, 129, 245
 Bunds, 64, 90

 Cactus, 266
 Canal water, 62-4
 Capital, 233-44
 Capitalist, 2, 30, 240, 241
 Cash accounts, 129, 235, 237
 Cattle
 29, 83, 93-106, 277, 283
 by-laws, 103
 breeding societies (co-operative), 99, 100, 102, 106, 173
 breeds of, 101
 co-operative first-aid for, 96, 172

 Cattle
 covering fees for, 105
 diseases of, 95, 277
 dual purpose, 99
 exhibitions, 102, 223, 225
 export trade of, 105
 food, 29, 84, 94
 judging, 102, 224
 markets, 103
 milk, 93, 97
 pedigree, 96
 premia and prizes for, preferable to stipends, 100
 prizes, 102, 103
 registration, 99, 103
 selective breeding of, 96
 shows, 101-2, 247
 stables, 96
 stealing, 270
 tattooing of, 97, 247, 270
 teaching, classes of animal husbandry at Hissar, 104
 troughs, 96
 Children
 medical examination of school-children, 109, 135
 special consideration of, for food etc., 133
 Chimneys, 51
 Cinemas, 209-10
 Citizenship, 155, 172, 245

 Clay for house repairs, 47-8
 Clean habits, 42, 129, 249, 275
 Cleanliness, 36, 107 *et seq.*, 154-5, 249
 of eyes, 115 *et seq.*
 of Government offices, etc., 11
 Co-education, 135
 Competitions, 226
 Compost manure, 38, 66, 275
 Pit Pamphlet describes, 277

- Compulsion and persuasion, 155
et seq.
- Consolidation of holdings, 34, 46, 47, 50, 57, 59, 168, 174, 247, 283, 289
- Cooking arrangements, 51
- Co-operation and co-operative societies, 20, 33, 34, 53, 89, 90, 96, 97, 99, 113n, 121, 122, 124, 125, 129, 140, 155, 160, 164-79, 184, 232, 233, 237, 246-7, 250, 252, 253, 254, 256, 257, 260, 261, 264, 271, 275
- Court of Wards Estates, 69, 97, 103
- Credit, 233, 236, 238
- Crime, violent, 129, 245-50
- Culture, better living a cultural subject, 230
- Dairying, 253
co-operative societies, 104, 254, 276
- Dais, 118, 119, 145, 148-50
and dai-training, 142, 276
- Debt, 4, 233-44
- Dehat Sudhar* Committee, 20, 103, 197-201, 202, 221n
- Democracy, success of, 202
- Demonstrations, 229
- Demonstration of Rural Reconstruction, 8, 232
- Departmentalism, 195-7
- Depressions, 46-8
- Diseases and pests
of crops, 75-8, 181, 277, 283
of cattle, 95, 277
of man, 110-15
cholera, 110, 283
enteric, 110
guinea-worm, 110
hookworm, 5n, 42, 110
malaria, 5n, 113-15, 283
meningitis, 36
plague, 110, 111, 283
smallpox, 110, 283
tuberculosis, 36, 112
- District Boards, opportunity of, to help in cattle improvement, 101-4
- Doctors
fees—see *Fees*
female, 119, 146, 147-8
private practitioners, 119
- Dogs, unwanted, 266
- Drains and drain-bricks, 41, 290
- Dramas, rural, 210-12
- Drinking-water—see *Wells*
- Drudgery for women, 51, 261
- Education—see *Women*, education of, and *Village school*
- Egyptian water wheel, 65
- Engineers, opportunities of, for service 47, 51, 53
- Epidemics, 5, 26, 110, 133
- Erosion, 79-92, 283
- Example, 9, 10, 11
of educated classes, 12
of Government, 11
of Government servants, 11, 22
of landlords, 13, 103
of Royal Family, 10
of rural leaders, 12, 22
of school, 180
of village officers, 13
- Ex-soldiers, 15
- Eyes
cleaning, diseases, treatment of, 115-18, 277
- Faction, litigation and quarrelling, etc., 2, 15, 154, 174, 178, 245-50, 285
- Fairs, 223-5, 247
- Famine, 5, 26
- Farm, the, 57-78
- Fatalism out of date now, 5, 26, 182
- Fees, doctors', 119, 120-3, 147-9
- Fields as latrines, bad farming to use, 43, 66
- Flies, 53, 110, 116
- Flowers, 53, 140
- Fly-nets for babies, 53
- Fodder crops, 95

- Food, good, 108-10
 Free issues and payment, 17,
 18, 96, 97, 105, 114, 115,
 119, 159, 170, 198, 200, 201,
 202, 208, 272
 Fruit, 108, 110, 176, 254
 Fuel, 54, 283
 Fumigation of seed stores, 76
- Games and playing fields, 46,
 47, 49, 175, 183, 185-9, 222,
 224, 225, 227, 246-8, 276,
 277, 288
 Game preservation, 273
Gharwali—see Women
 Ghee-making, 54
 Girls' education—see Women,
 education of
 Girl Guides, 136, 198, 276
 Goats, 90, 257, 283
 Government revenue, 17
 Government task, 8, 11, 17, 18,
 21, 22, 28, 90-1, 154-5, 245
 Gramophone records, 213-14,
 223, 283, 285-7
 Grass cutting, 95
- Handicrafts, 260
Hartog Report, 132
 Haybox, 53, 54-5, 65, 277, 283
 Health, 107-126
 Health Act, Public, 155
 Health, rural organization of,
 118-26
 Health visitors, 145, 148-51
 Hillsides, deterioration of, 79-92,
 95
 Holiday, weekly, 268
 Home, 32-56
 Horse breeding, 258
 Housewife—see Women
- Idle days, work for, 66, 86, 247,
 252, 257, 261
 Improved implements, 71, 283
 seed, 68, 277, 283, 289
 Improvement, possibility of, 3
 Industrial co-operative societies,
 53, 175, 252, 261
- Industries, subsidiary, 251,
 283
 Incentive to self-improvement,
 2, 6, 7, 8, 20, 23, 24, 130
- Joint effort, 2, 64, 78, 130,
 164-79, 195, 200, 231, 245-6,
 251 (see also Co-operation)
- Kharās*, bullock-driven flour mill
 53, 251
 Kitchens, 51
 Knowledge, the key of progress,
 9, 10
- Lac, 260
 Lambardars, literate, 14
 example of, 13
Land Administration Manual, 11
 Landlords' duties, etc., 2, 13,
 103, 105
 Latrines, 40, 42-4, 110, 275, 283,
 286, 290
 bored-hole, 43, 288
 pits, 43
 quail pit, 43, 288
 use of fields as, bad farming,
 43, 66
 Lead in rural work must come
 from the top, 16, 24
 Lead, village will follow good,
 21, 24
 Leaders—see Non-officials
 Legion, Indian, 272
 Litigation—see Faction
- Magic lanterns, 208, 225, 247,
 283
 Malaria, mosquitoes and nets, 5,
 11, 113-15, 269, 276, 277
 283
 Manure, 38-40, 65-8
 chemical, 67
 compost, 66
 green, 67
 Maternal mortality, 146
 Medical
 examination of schoolchildren
 109, 135

- Medical
 organization, 118
 organization for women, 145
- Mentality of villager, 5
- Midwives—see Dais
- Milk and milch cattle, 93, 99
- Models and miniatures, 222, 288
- Model villages, 231
- Mule breeding, 258, 283
- Municipalities, cattle breeding
 and milk supply for, 104-5,
 253, 275
- Newspaper, 215-17, 247
 village, 20, 190, 200, 215
- Non-officials, responsibilities and
 duties of, 2, 10, 12, 13, 22,
 103
- Objective of Rural Reconstruc-
 tion
 social, 22
 not economic, 22-3
- Officers' Board, 20, 195-7, 199,
 221 n, 252 n
- Officials
 responsibilities, duties, etc.,
 in Rural Reconstruction, 2,
 10, 11, 22, 30, 101, 103,
 154-5, 251-2
 ignorance of, of details of
 reforms, 220
 training of, necessary, 267
- Organization
 district, 195-203,
 medical, 118-26
 multiplicity of, 201
 village—see Village
- Ornaments, 263-6
- Outlook, change of, 3
- Panchayats, 20, 33, 34, 89, 97,
 102, 105, 142, 155, 157-60,
 178, 250, 271, 284
- Patwaris, duty of, 30
 modernization of, 14
- Payment and free issues, 17-18,
 97, 105, 115, 119, 159, 170,
 198, 200, 201, 202, 208, 272
- Permanence in self-improvement
 work, 6, 8
- Persian Wheel, 45, 61-2, 288
- Persuasion and compulsion,
 155-7
- Pests of crops—see Diseases
- Pictures, 32, 53, 140, 217-19
- Pits, 37-40, 43-4, 46, 47, 65, 275,
 277, 280, 283, 288
- Plague inoculation, 111
- Ploughing, 71-2
 matches, 227, 247
- Ponds, 46-8, 113
- Poor people and poverty, 18, 23,
 24
- Population, increase of, 22, 23,
 26, 131
- Possibility of improvement, 3
- Posters, 219-20
- Pride in home or farm, 29, 33
- Poultry, 252-3
- Printed material, 220
- Providence, 28
- Publicity, 20, 88-9, 200, 204-232,
 training in, 205
- Public opinion, 87, 89, 155, 245
- Quarrelling—see Faction
- Quinine, 114-15, 269-70, 276
- Rain water, 60, 80-1
- Regular habits, 42, 129
- Revenues, Government, 17
 remissions of, 19
- Ribbon development, 274
- Roads, 49, 75, 152, 168
- Running accounts, 129, 235
- Rural Community Board, 203
- Rural dispensaries and hospitals,
 118, 119, 147-8, 153, 177
- School—see Village
 propaganda, 220, 229
- Security, the essence of standard
 of living, 6
- Seed, 68-71, 76, 277, 283
- Self-control, 42, 130, 182, 248-9
- Self-governing institutions, 156
- Self-help, 1-3, 17-20, 164, 166,
 241, 272

- Self-improvement, incentive to,
2, 7, 8, 20, 23, 24, 130, 240
permanence and spontaneity
in, 6, 8
- Self-respect, 42, 129, 182, 248-9
- Sheep, 255, 283
- Shopkeeper, 30
- Shows, cattle, 101-2, 247
one-day, 225
- Silk, 260
- Silos, 95, 278
- Sincerity of workers, 21
- Soak-pits, 42
- Social objective of Rural Re-
construction, 22
- Songs and glees, 213, 223, 247,
285
- Spirit of service, 9, 10, 30, 144
- Spontaneity in self-improvement
work, 6, 8
- Sports—see Games
- Stall-feeding of cattle, 84, 89, 95,
- Standard of living, 2, 6, 20, 22,
23, 24, 25, 130, 240, 243
- Stealing cattle, 270
- Street paving, 33 n, 130
- Tattooing of cattle, 97, 247, 270
- Teaching
absence of, for villagers, 6, 8
of better living at schools and
colleges, 12, 230
- Training, 267
in publicity, 205
- Tuberculosis, 36, 112
- Unemployment, 29
- Untouchables carrying excreta,
43, 270
- Urban
dairy supplies, 253
outlook, 180
uplift, 274
- Vaccination and re-vaccination,
111, 184-5, 275, 277 283
- Vegetables, 108, 126, 254, 275
- Ventilation, 35-6, 107, 288, 290
- Village, 32-56
Farmers' Associations, 162
finance, 236
industries, 172, 175
menials, 31
newspaper, 20, 190, 200, 215
organization, 9, 21, 22, 33,
140, 152-163, 249
progress book, 163
sanitary committees, 161
school, 14, 180-194, 220, 229,
288
school visits, 191
schoolmaster, 181
will follow good lead, 21, 24
- Walls, use of for slogans, 220,
229
- Waste, 2, 24, 129
- Waste water, 40-2
- Watbandi, 29, 60, 74, 85, 95,
277, 283
- Water lifts, 61, 65
- Weeks, 181, 229
- Weekly clean-up, 229, 268
- Well-boring, 61
- Wells and drinking-water, 44-6,
60, 111, 288
- Wells and well water for irriga-
tion, 60
- Windows, 35-6
- Wireless, 190, 201, 206-8, 225,
247, 276
- Women
co-educational, 136, 288
doctors, 119, 146, 147-50
domestic training, 14, 127, 136
drudgery, 51, 261-2
education of, 9, 21, 22,
108, 132-7, 276, 277, 284
educated, their duty and
opportunity, 140, 143-4,
147, 150, 151
hard working, etc., 33
higher education, complaints
of effect of, 133-5

Women

importance of, in Rural Reconstruction, 10, 29, 32, 33, 51, 108, 109, 127-151, 181, 189, 206, 232, 235, 237, 243, 249
organizations and Institutes, 9, 21, 22, 129, 138, 146, 151, 232, 276
washing places for, 41
welfare, 9, 132, 276, 284

Women

welfare service for, 142-5, 150-1
work for, necessity of money for, 145, 146, 150-1
Work, mental and physical, 73
hard, 72, 74, 86, 246-8
Wool, weaving, etc., 36, 176, 255-7
Workers, village, 21, 267